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M E D I C A L B O T A N Y,

CONTAINING

SYSTEMATIC AND GENERAL DESCRIPTIONS,

W I T H

PLATES, OF ALL THE MEDICINAL PLANTS,

INDIGENOUS AND EXOTIC,

COMPREHENDED IN THE  
CATALOGUES OF THE MATERIA MEDICA,

AS PUBLISHED BY THE

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND EDINBURGH:

ACCOMPANIED WITH A

CIRCUMSTANTIAL DETAIL OF THEIR MEDICINAL EFFECTS,

AND OF THE

DISEASES IN WHICH THEY HAVE BEEN MOST SUCCESSFULLY EMPLOYED.

By WILLIAM WOODVILLE, M. D.

OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

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IN THREE VOLUMES.

VOL. I.

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*Medicus omnium Stirpium (si fieri potest) peritiam habeat; sin minus plurimum saltem quibus  
frequenter utimur.* GALEN, Lib. De Antidot.

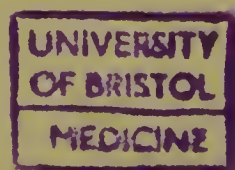
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L O N D O N:

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M. DCC. XC.





T O

SIR GEORGE BAKER, Bart.

*P R E S I D E N T,*

T H E

F E L L O W S,

A N D . T H E

L I C E N T I A T E S,

O F T H E

*ROYAL COLLEGE OF PHYSICIANS,*

L O N D O N :

THIS FIRST VOLUME OF MEDICAL BOTANY,

WITH THEIR PERMISSION,

IS MOST RESPECTFULLY INSCRIBED,

B Y

T H E A U T H O R.



# P R E F A C E.

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**I**N the catalogues of the *Materia Medica*, the productions of the animal and mineral kingdoms bear a small proportion to those of the vegetable. Though it must be acknowledged that for some time past the medicinal uses of vegetable simples have been less regarded by physicians than they were formerly, which probably may be ascribed to the successive discoveries and improvements in chemistry; it would however be difficult to shew that this preference is supported by any conclusive reasoning drawn from a comparative superiority of Chemicals over Galenicals, or that the more general use of the former has actually led to a more successful practice.

Although what may be called the herbaceous part of the *Materia Medica*, as now received in the British pharmacopœias, comprises but a very inconsiderable portion of the vegetable world; yet limited as it now is, few medicinal practitioners have a distinct botanical knowledge of the individual plants of which it is composed, though generally well acquainted with their effects and pharmaceutical uses. But the practitioner, who is unable to distinguish those plants which he prescribes, is not only subjected to the impositions of the ignorant and fraudulent, but must feel a dissatisfaction which the inquisitive and philosophic mind will be anxious to remove, and to such it is presumed *MEDICAL BOTANY*, by collecting and supplying the information necessary on this subject, will be found an acceptable and useful work; the professed design of which is not only to enable





# C A T A L O G U E,

In which all the PLANTS composing the MATERIA MEDICA,  
as referred to by the COLLEGES of LONDON and EDINBURGH,  
are arranged according to the System of Linnæus, and distinguished  
respectively by the letters L E.

## CLASS I. MONANDRIA.

### ORD. MONOGYNIA.

Amomum <i>Zingiber</i>	L	E
<i>Cardamomum</i>	L	E
Kæmpferia <i>rotunda</i>	L	E
Curcuma <i>longa</i>	L	E

## II. DIANDRIA.

### MONOGYNIA.

Olea <i>europæa</i>	L	E
Veronica <i>Beccabunga</i>	L	—
Gratiola <i>officinalis</i>	L	E
Rosmarinus <i>officinalis</i>	L	E
Salvia <i>officinalis</i>	L	E

### TRIGYNIA.

Piper <i>nigrum</i>	L	E
<i>longum</i>	L	E
<i>Cubeba</i>	L	E

## III. TRIANDRIA.

### MONOGYNIA.

Valeriana <i>officinalis</i>	L	E
Tamarindus <i>indica</i>	L	E
Crocus <i>sativus</i>	L	E
Iris <i>florentina</i>	L	E
<i>Pseudo Acorus</i>	—	E

## DIGYNIA.

Saccharum <i>officinarum</i>	L	E
Hordium <i>distichon</i>	L	—
Triticum <i>hybernum</i>	L	—
Avena <i>sativa</i>	L	—

## IV. TETRANDRIA.

### MONOGYNIA.

Rubia <i>tinctorum</i>	L	E
Plantago <i>major</i>	—	E
Dorstenia <i>Contrajerba</i>	L	E
Santalum <i>album</i>	—	E

## V. PENTANDRIA.

### MONOGYNIA.

Anchusa <i>tinctoria</i>	—	E
Menyanthes <i>trifoliata</i>	L	E
Spigelia <i>marilandica</i>	L	E
Convolvulus <i>Scammonia</i>	L	E
<i>Jalapa</i>	L	E
Cinchona <i>officinalis</i>	L	E
Verbascum <i>Thapsus</i>	—	E
Datura <i>Stramonium</i>	—	E
Hyoscyamus <i>niger</i>	—	E
Nicotiana <i>Tabacum</i>	L	—
Atropa <i>Belladonna</i>	—	E
Solanum <i>Dulcamara</i>	—	E
Psychotria <i>emetica</i>	L	E
Capficum <i>annuum</i>	L	E
Chironia <i>Centaureum</i>	L	E

Teucrium <i>Scordium</i>	L	E
Hyssopus <i>officinalis</i>	—	E
Lavandula <i>Spica</i>	L	E
Mentha <i>piperita</i>	L	E
<i>spicata</i> , Hud.	L	E
<i>Pulegium</i>	L	E
Glecoma <i>hederacea</i>	E	—
Marrubium <i>vulgare</i>	L	E
Origanum <i>vulgare</i>	L	—
<i>Majorana</i>	L	E
Thymus <i>Serpyllum</i>	—	E
<i>vulgaris</i>	—	E
Melissa <i>officinalis</i>	L	E

## ANGIOSPERMIA.

Digitalis <i>purpurea</i>	L	E
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## XV. TETRADYNAMIA.

## SILICULOSA.

Cochlearia <i>officinalis</i>	L	E
<i>Armoracia</i>	L	E

## SILIQUOSA.

Sisymbrium <i>Nasturtium</i>	L	E
Sinapis <i>nigra</i>	L	E
Cardamine <i>pratensis</i>	L	E

## XVI. MONADELPHIA.

## POLYANDRIA.

Althæa <i>officinalis</i>	L	E
Malva <i>sylvestris</i>	L	E

## XVII. DIADELPHIA.

## HEXANDRIA.

Fumaria <i>officinalis</i>	—	E
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## OCTANDRIA.

Polygala <i>Senega</i>	L	E
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## DECANDRIA.

Pterocarpus <i>santalinus</i>	L	E
Dolichos <i>pruriens</i>	—	E
Spartium <i>scoparium</i>	L	E
Geoffroya <i>inermis</i> Wrig.	—	E
Glycyrrhiza <i>glabra</i>	L	E
Trigonella <i>Fœnum græcum</i>	L	E
Astragalus <i>Tragacantha</i>	L	E

## XVIII. POLYADELPHIA.

## ICOSANDRIA.

Citrus <i>Medica</i>	L	E
<i>Aurantium</i>	L	E

## POLYANDRIA.

Hypericum <i>perforatum</i>	L	—
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## XIX. SYNGENESIA.

## POLYGAMIA ÆQUALIS.

Cynara <i>Scolymus</i>	L	E
Leontodon <i>Taraxacum</i>	L	E
Arctium <i>Lappa</i>	L	E

## POLYGAMIA SUPERFLUA.

Tanacetum <i>vulgare</i>	L	E
Artemisia <i>Abrotanum</i>	L	E
<i>Absinthium</i>	L	E
<i>vulgaris</i>	—	E
<i>maritima</i>	L	—
<i>Santonicum</i>	L	E

<i>Tussilago Farfara</i>	L	E
<i>Inula Helenium</i>	L	E
<i>Arnica montana</i>	L	E
<i>Anthemis nobilis</i>	L	E
<i>pyrethrum</i>	L	E
<i>Achillea Millefolium</i>	—	E

## POLYGAMIA FRUSTRANEA.

<i>Centaurea benedicta</i>	L	E
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## MONOGAMIA.

<i>Lobelia siphilitica</i>	—	E
<i>Viola odorata</i>	L	E

## XX. GYNANDRIA.

## DIANDRIA.

<i>Orchis mascula</i>	—	E
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## HEXANDRIA.

<i>Aristolochia Serpentaria</i>	L	E
<i>rotunda, &amp;c.</i>	—	E

## POLYANDRIA.

<i>Arum maculatum</i>	L	E
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## XXI. MONOECIA.

## MONANDRIA.

<i>Myristica moschata</i> Thunb.	L	E
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## TETRANDRIA.

<i>Urtica dioica</i>	L	E
<i>Morus nigra</i>	—	E

## POLYANDRIA.

<i>Quercus Robur</i>	L	E
<i>Juglans regia</i>	L	—

## MONADELPHIA.

<i>Pinus species varia</i>	L	E
<i>Croton Cascarilla</i>	L	E
<i>Ricinus communis</i>	L	E

## SYNGENESIA.

<i>Momordica Elaterium</i>	L	—
<i>Cucumis Colocynthis</i>	L	E
<i>Bryonia alba</i>	—	E

## XXII. DIOECIA.

## DIANDRIA.

<i>Salix fragilis</i>	—	E
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## PENTANDRIA.

<i>Pistacia Terebinthus</i>	L	—
<i>Lentiscus</i>	L	E

## HEXANDRIA.

<i>Similax Sarsaparilla</i>	L	E
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## MONADELPHIA.

<i>Juniperus communis</i>	L	E
<i>Lycia</i>	L	E
<i>Sabina</i>	L	E
<i>Cissampelos Pareira</i>	L	—

## XXIII. POLYGAMIA. XXIV. CRYPTOGRAMIA.

## M O N O E C I A.

Veratrum <i>album</i>	L	E
Parietaria <i>officinalis</i>	L	E
Stalagmitis <i>Cambogioides</i> , Mur.	L	E
Mimosa <i>nilotica</i>	L	E
<i>Catechu</i>	L	E

## D I O E C I A.

Fraxinus <i>Ornus</i> , &c.	L	E
Panax <i>quinquefolium</i>	L	E

## T R I O E C I A.

Ficus <i>Carica</i>	L	E
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## F I L I C E S.

Asplenium <i>Trichomanoides</i>	—	E
Polypodium <i>Filix mas</i>	L	E

## A L G Æ.

Lichen <i>islandicus</i>	—	E
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## F U N G I.

Boletus <i>igniarius</i>	—	E
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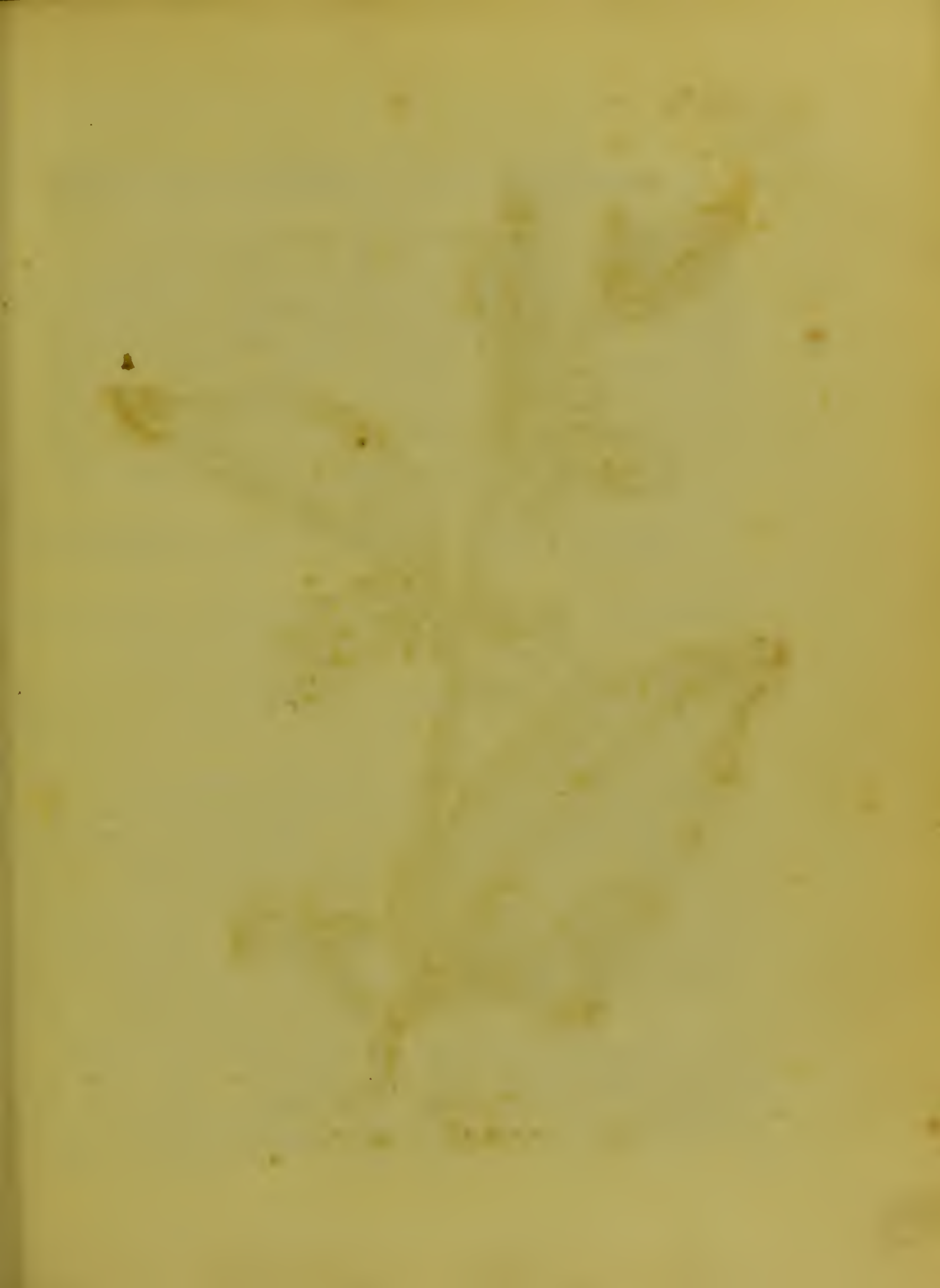
## A P P E N D I X, Palmæ.

Cocos <i>butyracea</i>	—	E
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*For an Arrangement of the above, according to their Medicinal Effects, see the last Volume.*

ATROPA BELLADONNA.







*Atropa Belladonna.*

*Published as the Act directs by D. Woodville Jan 21. 1790.*

# ATROPA BELLADONNA. DEADLY NIGHTSHADE.

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*SYNONYMA.* BELLADONNA, *Pharm. Edin.* BELLADONNA TRICHOTOMA, *Socop. Carn.* i. p. 160. BELLADONNA caule herbaceo, brachiato, foliis ovato-lanceolatis, integerrimis. *Hal. Stirp. Helv.* N. 579. SOLANUM LETHALE, *Clus. Hist.* p. 86. *Dod. purg.* p. 360. SOLANUM MELANOCERASUS, *Baub. Pin.* 166. SOLANUM MAJUS, *Cam. epit.* p. 817.

*Class* Pentandria. *Order* Monogynia. *L. Gen. Plant.* 249.

*Eff. Gen. Ch.* *Cor.* campanulata. *Stam.* distantia. *Bacca*, globosa, 2-locularis.

*Spec. Char.* Atropa Belladonna, caule herbaceo, fol. ovatis integris.

THE Belladonna has a thick, whitish, root, which is perennial, and sends forth strong, branched, annual, purple-coloured stems, from three to five feet high. The leaves are of unequal size, entire, oval, pointed, and stand in pairs upon short footstalks. The flowers are of a dark or brownish purple colour, large, pendent, bell-shaped, furrowed, and the limb cut into five segments. The whole plant is covered with fine hairs or down: the flowers appear in June or July, but the berries are not ripe till September, when they acquire a shining black colour. It grows in shady and stony waste grounds, but is not very common near London.

Whether this plant is the *Στρυχνος μανικός* of Dioscorides or not, botanists have not yet ascertained, but it has certainly been long known as a strong poison of the narcotic kind; and the berries, though less powerful than the leaves, furnish us with many instances



of <sup>a</sup> their fatal effects, particularly upon children, who are readily tempted to eat this fruit by its alluring appearance and sweet taste. The number of these berries necessary to produce deleterious effects, may probably depend upon the state of maturity in which they are eaten: if not more than three or four be swallowed, according to Haller's account, no bad consequence ensues; "Baccæ sapore fatuo  
 "dulci possunt absque noxa edi <sup>b</sup> si numerus tres quatuorve non  
 "excesserit: plures etiam a studioso medicinæ Colonienfi nomine  
 "Simonis vidi deglutiri." Hal. Stirp. Helv. No. 579.

<sup>a</sup> Sennert. lib. vi. par. 7. cap. 9. Lobel Stirpium Adversa. p. 103. Matthiolus Oper. Omn. p. 754. Oetinger de Belladonna. Aug. Vindel. Strychnomania, &c. Bodæus à Stapel. Comment. in Theophrast. 586. Simon Pauli Quad. Botan. p. 488. Gerard's Herbal, 341. Wepfer's Cicut. Aquat. Histor. et Noxæ, p. 228. Boulduc. Histoire de l'Acad. a. 1703. Rossi Plant. Venen. p. 11. Boerhaave's Hist. Plant. Lugd. Bat. Hort. p. 510. Journ. de Med. ann. 1759. Gent. Magaz. 1747 & 1748. Hill's British Herbal, p. 329. Spielman's Diff. Veget. Venen. p. 16. Mapp. Pl. Alsat. p. 36. Murray's Appar. Medicam. p. 431. Many other recent facts of the same kind might be adduced from various periodical publications. Ray found by applying the leaves of the Belladonna near the eye, a remarkable relaxation of the uvea was produced. Sauvages (*Nosol.*) supposes that the Belladonna was the plant which produced such strange and dreadful effects upon the Roman soldiers, during their retreat (under the command of Anthony) from the Parthians; they are said to have "suffered great  
 "distress for want of provisions, and were urged to eat unknown plants: among others  
 "they met with an herb that was mortal; he that had eaten of it, lost his memory and  
 "his senses, and employed himself wholly in turning about all the stones he could find,  
 "and after vomiting up bile, fell down dead." Plutarch's Life of Anthony.—The Scotch historian, Buchanan, relates that the Scots mixed a quantity of the juice of the Belladonna (*Solanum Somniferum*) with the bread and drink, which by their truce they were to supply the Danes with, which so intoxicated them, that the Scots killed the greatest part of Sweno's army while asleep. Lib. vii.

Ray relates a curious instance of the effects of this plant in the following words. Hist. Plant. p. 680. Accidit, ni fallor, tempore Pontificis Maximi Urbani ultimi, ut quidam de famulatio Cardinalis magni nominis (ut mihi hîc Augustæ retulit ejus hortulanus) infunderet in vino Malvatico herbam illam quam Bellam Donnam vocant, daturam aliàs per noctem ut ejus herbæ effectus discerent; infusum hoc propinarunt cuidam fratri mendicanti ex conventu S. Hieronymi, qui Patavii Fratrum ignorantia dicitur, à primo breve delirium, cachinni, gesticulationes variæ; dein insania vera, post stupor mentis qualis est ebriorum vigilantium. Cardinalis pro ebrio in carcere includit; deinde à medico qui rem subolfecerat innocens pronuntiatur, qui aceti cyatho propinato, a dementia quam Bella Donna causavit eum liberat. Hachstellerus Decad. 7 Ob.

And Shakespeare in his Macbeth makes Banquo say,

Or have we eaten of the insane root

That takes the reason prisoner.

<sup>b</sup> Hort. Florent. p. 62.

But

But when a greater number of the berries are taken into the stomach, scarcely half an hour elapses before violent symptoms supervene; viz. vertigo, delirium, great thirst, painful deglutition, and retching, followed by furor, stridor dentium, and convulsions; the eye-lids are drawn down, the uvea dilated and immovable; the face becomes red and tumid, and spasms affect the mouth and jaw; the general sensibility and irritability of the body suffer such great diminution, that the stomach often bears large and repeated doses of tart. emet. (gr. 14.) without being brought into action; the pulse is small, hard, quick, and subsultus tendinum, risus sardonius & coma, generally precede death. The body being opened, inflammation has been discovered in the intestines, mesentery, and liver, Comm. Nor. 1743, p. 61. And Boulduc, Hist. de l'Acad. des Sc. de Paris, 1703, p. 56. found the stomach of a child eroded in three places. It may be necessary to remark, that vinegar, liberally drunk, has been found very efficacious in obviating the effects of this poison; evacuations should however be always first promoted.

The leaves of the Belladonna were first used externally to discuss scirrhus and cancerous tumours, and also as an application to ill conditioned ulcers: their good effects in this way at length induced physicians to employ them internally for the same disorders, and we have a considerable number of well authenticated facts which prove them a very serviceable and important remedy.<sup>c</sup> But it must likewise be confessed, that many cases of this sort have occurred in which the Belladonna has been employed without success:<sup>d</sup> this, however, may

<sup>c</sup> Junker's Conspect. Ther. Gen. Ed. 1725. p. 491. Journ. de Med. ann. 1766. Timmermann's Progr. Mich. Albertus de Belladonna. Tib. Lambergen, stated in the Phil. Transf. vol. 50, by Mr. Pultney. Comment. de Rebus, tom. 8. p. 654. Durlac Journ. de Med. t. 11. p. 449. Amoureux, l. c. tom. 13. p. 47. Marteau. l. c. tom. 14. p. 11. van den Block. l. c. tom. 14. p. 108. Ludw. Advers. Pract. vol. 1. P. 4. p. 637. and vol. 2. p. 314. To which we may add the later authorities of Bergius, (Mat. Med. p. 128. vol. 1.) and Murray, App. Med. vol. 1. p. 440. who used them successfully in convulsions and epilepsy. The good effects of the berries may be learned from Gesner, Epist. p. 34. Eph. N. C. ann. 3. Obs. 64. Smetius, lib. 4. p. 238. Mayerne Prax. Med. Syntagm. Alt. p. 136.

<sup>d</sup> Heister Chirurgie, p. 328. Van. Der. Harr. *over de Kniernoeft-en Kanker Gezwellen*, p. 85. Van. Doern. in litt. ad Timmermann Progr. Timmerman junr. ibid. Acrel. Chir. Händelser. p. 40. De Haen Rat. Med. tom. 2. p. 45. Schmuckero Chirurg. Wahrnehmungen, tom. 2. p. 150. And some accounts given of this plant by our own countrymen Gataker and Bromfield.



be said of every medicine; and though Dr. Cullen repeatedly experienced its inefficacy, yet the facts he adduces in confirmation of the utility of this plant, are clear and decisive: “ I have had a cancer  
 “ of the lip entirely cured by it; a scirrhusity in a woman’s breast,  
 “ of such a kind as frequently proceeds to cancer, I have found  
 “ entirely dissolved by the use of it; a sore a little below the eye,  
 “ which had put on a cancerous appearance, was much mended by  
 “ the internal use of the Belladonna: but the patient having learned  
 “ somewhat of the poisonous nature of the medicine, refused to  
 “ continue the use of it, upon which the sore again spread, and  
 “ was painful; but upon a return to the use of the Belladonna, was  
 “ again mended to a considerable degree: when the same fears again  
 “ returning, the use of it was again laid aside, and with the same  
 “ consequence of the sore becoming worse. Of these alternate  
 “ states, connected with the alternate use of, and abstinence from,  
 “ the Belladonna, there were several of these alternations which fell  
 “ under my own observation.”

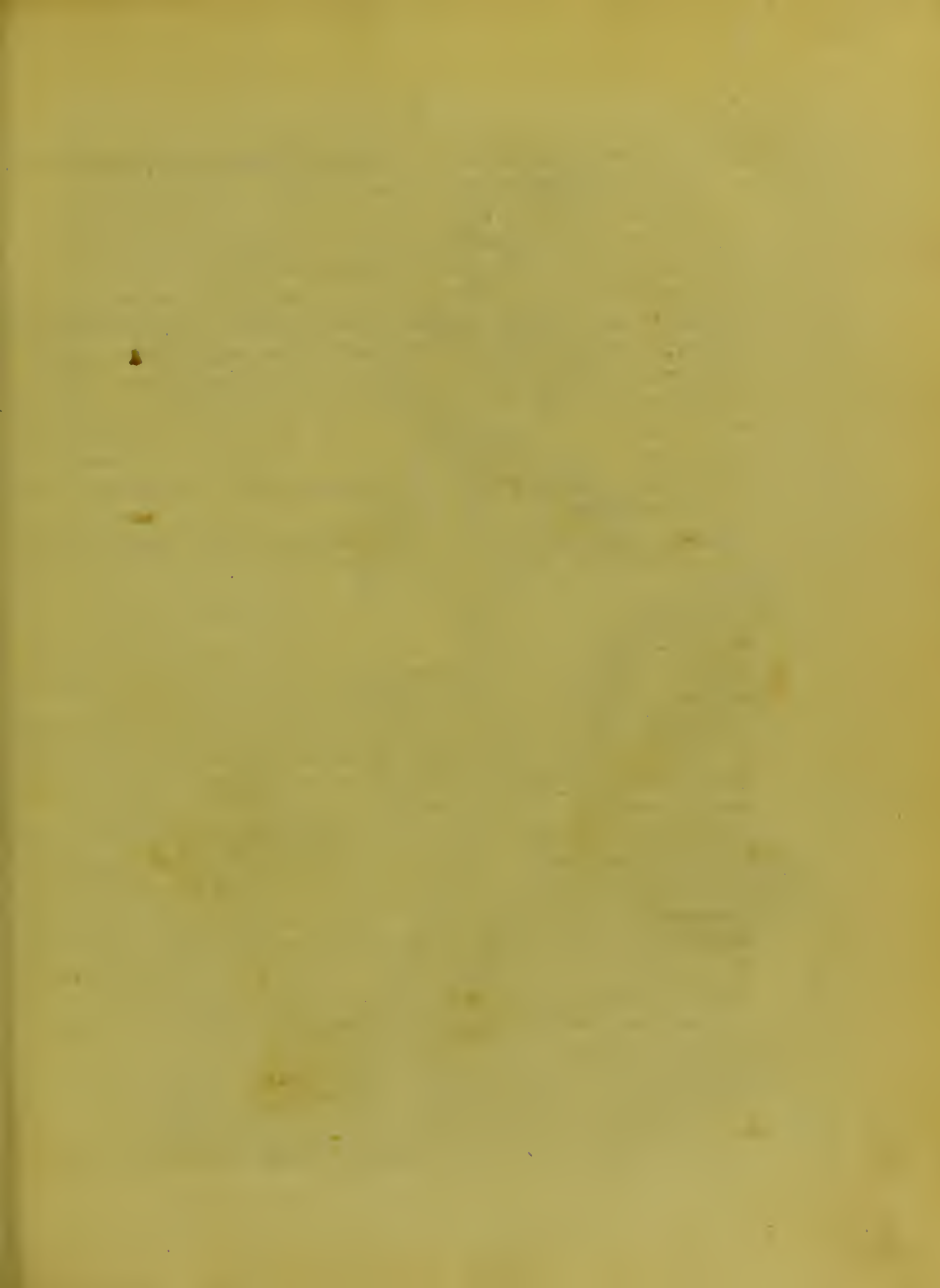
The sensible effects produced by the leaves of this plant taken in medicinal doses, are usually by the skin, the urinary passages, and sometimes by stool; in larger doses troublesome dryness of the mouth and throat, giddiness, and dimness of sight are experienced.

That the advantages derived from the internal use of Belladonna are only in proportion to the evacuations effected by it, is a conclusion we cannot admit as sufficiently warranted by the facts adduced upon this point.

As this plant is very uncertain in its operation, the proper dose is with difficulty ascertained; the most prudent manner of administering it is by beginning with one grain or less, which may be gradually increased according to its effects. Six grains are considered as a very large dose.—With respect to the berries, so successfully employed as an anodyne, by Gesner and others, in dysenteries, a small spoonful (coch. parvum) of a syrup of the juice was the dose given.

The root seems to partake of the same qualities as the leaves, but is less virulent.

MENYANTHES TRIFOLIATA.





*Menyanthes trifoliata*  
Publish'd as the Act directs by D<sup>r</sup> Woodville Jan<sup>r</sup> 7. 1790.



MENYANTHES TRIFOLIATA.

WATER TREFOIL, OR  
BUCKBEAN.

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*SYNONYMA.* TRIFOLIUM PALUDOSUM, *Pharm. Lond. & Edin.* MENYANTHES PALUSTRE TRIPHILLUM, *Tourn. Boerb. Ray.* TRIFOLIUM FIBRINUM, *Off. Germ.* ACOPA, *Dioscor. Hist. Oxon.*

*Class* Pentandria. *Order* Monogynia. *L. Gen. Plant.* 202.

*Eff. Gen. Char.* Cor. hirsuta. *Stigma* 2-fidum. *Caps.* 1-locularis.

*Spec. Char.* M. fol. ternatis.

THIS plant is common in every part of England; it grows in marshes and ponds, producing its flowers in an open terminal spike about the latter end of June. The scapus, or stalk, rises from six to twelve inches in height. The petals are sometimes entirely white, but more commonly rose-coloured on the outside, and within they are finely fringed, so as to have a hairy or fibrous appearance, hence named *Trifolium Fibrinum*: the root is perennial, creeping, and jointed, sending forth many long slender filaments. The trifoliata is easily distinguished from the other species of *Menyanthes* by its ternate leaves, which have been thought to resemble those of the common garden bean, and have given it the English name, Buckbean.

The whole plant is so extremely bitter, that in some countries it is used as a substitute for hops in the preparation of malt liquor<sup>a</sup>; yet Linnæus observes, that the poorer people in Lapland make a bread of the powdered roots mixed with meal, but at the same time he acknowledges it is a very unpalatable food<sup>b</sup>.

<sup>a</sup> Flor. Lappon. p. 50.

<sup>b</sup> *Ibid.*

The blackness manifested by adding a solution of green vitriol to the juice, or to a strong infusion of the leaves of Buckbean, is a sufficient test of its astringency; while a dram of the powdered leaves seldom fails to open the body, or produce vomiting; so that in common with the tonic properties of a bitter, it seems farther to possess a considerable share of medicinal activity: we can therefore more easily credit the reports of its success in a great number of chronic diseases mentioned by various authors<sup>c</sup>, as scurvy, dropsy, jaundice, asthma, periodical headaches, intermittents, hypochondriasis, cachexia, obstructio mensium, rheumatism, scrophula, worms, gout. Dr. Boerhaave was relieved in the last mentioned complaint by drinking the juice mixed with whey<sup>d</sup>; and Dr. Alston tells us, that “ this plant had remarkable effects in the gout, in keeping off “ the paroxysms;” but adds, “ though not to the patient’s advantage<sup>e</sup>.”

In confirmation of the good effects of Water Trefoil in dropsies, we are told that sheep, when forced to eat it, are<sup>f</sup> cured of the rot; (oves tabidæ) yet as we have but few and imperfect proofs of its diuretic powers, this fact will be considered of little weight.

Bergius confines the uses of this plant to scorbutus, leucophlegmatia, arthritis, rheumatismus, cacoethes<sup>g</sup>, and this specification is still farther contracted by later writers on the Materia Medica. In Lewis’s Mat. Med. (by Mr. Aikin) it is said, that the leaves of buckbean “ have of late years come into common use as an alterative and aperient, in impurities of the humours, and some “ hydropic and rheumatic cases;” and as an active and eccoprotic bitter, we should suppose them not ill adapted to supply the want of bile in the *primæ viæ*, and thus infer their use in protracted

<sup>c</sup> Trifolii Fibrini Historia, selectis observationibus et perspicuis exemplis, illustrata a Jo. Franco, anno 1701.

Recte observavit D. Tancredus Robinson herbam hanc Germanis, aliisque gentibus septentrionalibus nunc dierum unicè charam et in magno pretio esse, et assiduo usu frequentari in omnibus fere morbis, ut certissimam panaceam, ad quam etiam in deploratis affectibus, velut ad sacram anchoram, confugiunt (Raii Histor. Plant. p. 1099.) See also Willius Act. Hafn. vol. 3. Sim. Pauli, Quadrip. Bot. p. 173. et seq. Tilling Misc. N. curios. Dec. 2. Gulbrand Diss. de Sanguifluxu Uterino. Du Clos Anc. Mem. p. 329. Schulz Mat. Med. p. 445.

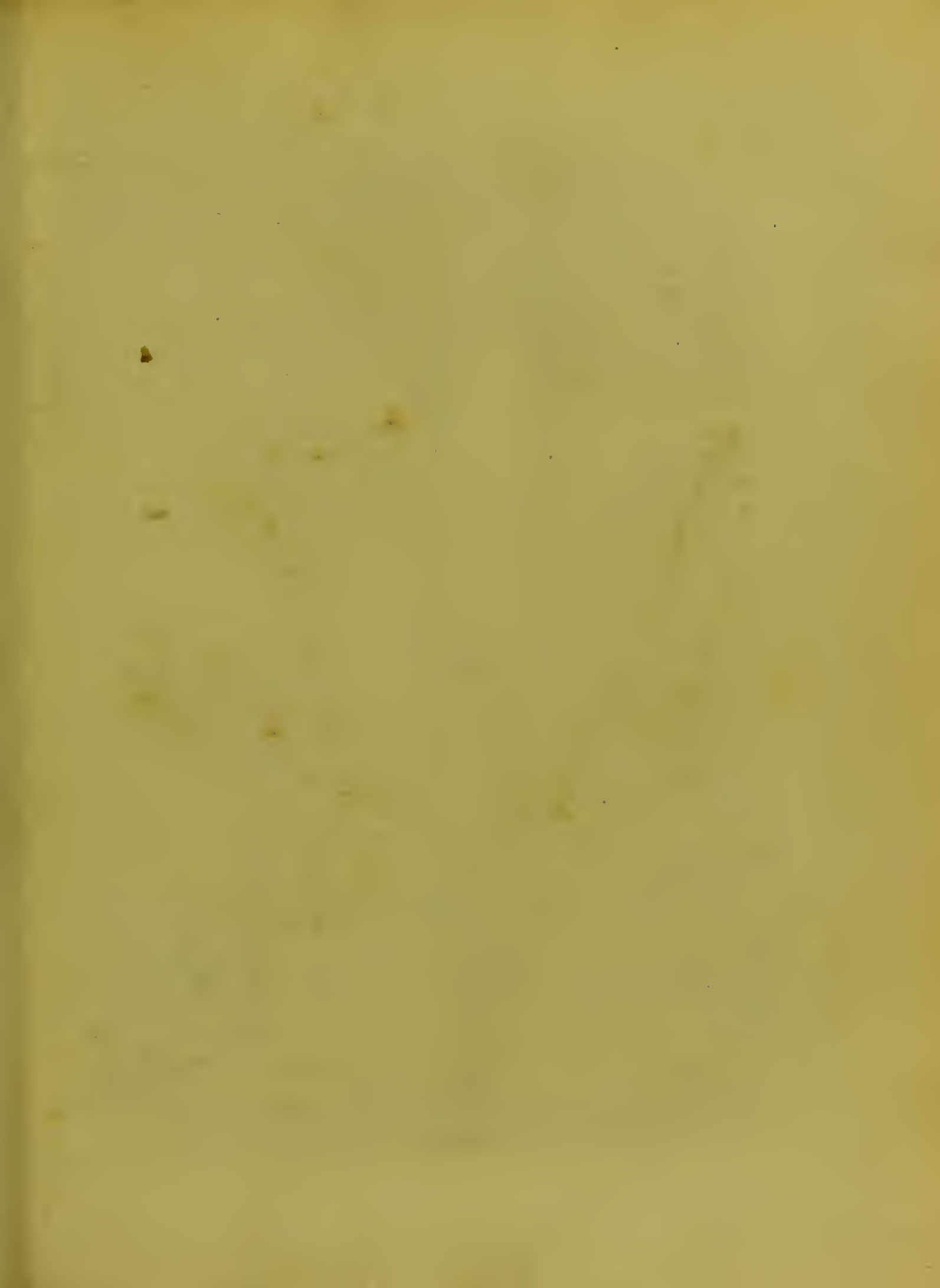
<sup>d</sup> Eph. Nat. Cur. Dec. I. ann. III. Obs. 123 (this answers Dr. Alston’s query, who asks, “ Where is this related?” Alston. Mat. Med. vol. 2. p. 240.

<sup>e</sup> l. c.

<sup>f</sup> Dr. T. Robinson.

<sup>g</sup> Mat. Med. vol. 1. p. 91.







*Leontodon*

*Taraxacum.*

*Published as the Act directs*

*by D. Woodville Jan 7. 1790.*

jaundice, and other biliary obstructions. Dr. Cullen has “ had several instances of their good effects in some cutaneous diseases of the hepatic and seemingly cancerous kind <sup>h</sup>.”

The leaves may be given in powder from ℥i to ℥ij for a dose two or three times a day, but a strong infusion of them is perhaps preferable, and with delicate stomachs it may be necessary to conjoin a grateful aromack: they impart their properties both to watery and spiritous menstrea, and an extract is ordered to be prepared from them in the Ph. Dan. p. 171. Efficax et frequentis commodique usus. *Murray.*

## LEONTODON TARAXACUM. COMMON DANDELION.

*SYNONYMA.* TARAXACUM, *Pharm. Lond. & Edin.* DENS LEONIS, *Autorum.*

*Class* Syngenesia. *Order* Polygamia Æqualis. *L. Gen. Plant.* 912.

\* *Semiflosculosi Tourn. corollis ligulatis omnibus.*

*Eff. Gen. Char.* *Recept.* nudum. *Cal.* imbricatus, squamis laxiusculis. *Pappus* plumosus.

*Spec. Char.* L. T. calyce squamis inferne reflexis, foliis runcinatis denticulatis lævibus.

DANDELION is so very common, that a plot of ground can scarcely be seen where it does not present its yellow flowers\*. It is easily distinguished from the hawkweeds and other ligulated

<sup>h</sup> Mat. Med. vol. 2. p. 75.

\* It has been observed that these flowers possess a certain degree of sensibility, for when under the powerful influence of the sun in a summer's morning, an evident motion of the flowerets may be discovered. MS Lect. of the late Dr. Hope.



plants, by the outer calyces being bent downwards, and by the flower stalk, which is simple, coloured, shining, and unifloral: the leaves are all radical and cut in a peculiar way, forming a good example of what botanists call *runcinata*. The seeds, in approaching to maturity, become crowned with a fine downy feather, disposed in a spherical shape. The root is perennial and spindle-shaped, which with the whole plant abounds with a milky juice.

The young leaves of this plant in a blanched state have the taste of endive, and make an excellent addition to those plants eaten early in the spring as fallads<sup>a</sup>. At Gottingen the roots are roasted and substituted for coffee by the poorer inhabitants; who find that an infusion prepared in this way can hardly be distinguished from that of the coffee<sup>b</sup> berry.

Dandelion is generally considered by medical writers as the most active and efficacious of the lactescent plants; the expressed juice is bitter and somewhat acrid, the root however is still bitterer<sup>c</sup>, and possesses more medicinal power than any other part of the plant. *Taraxacum* has been long in repute as a mild detergent and aperient, and its diuretic effects may be inferred from the vulgar name it bears in most of the European languages, *quasi lectiminga et urinaria herba dicitur*<sup>d</sup>. Murray says, *Viscidos nimirum tenacesque humores stirps solvit, et obstructa vasa referat, eruptionem variam sanat*<sup>e</sup>: and Bergius recommends its use in obstructions of the liver, hypochondriasis, and jaundice. Its successful use in the first of these diseases is confirmed by his own experience<sup>f</sup>. De Haen also gives us another instance of the same complaint cured by the same means;

<sup>a</sup> Withering's Bot. Arrang. p. 839.

<sup>b</sup> Murray's Appar. p. 107.

<sup>c</sup> Haller's Strip. Hel. n. 58.

<sup>d</sup> —plus lotii derivat in vesicam quam pueruli retinendo sunt, præsertim inter dormiendum, eoque tunc imprudentes et inviti stragula permingunt. Ray's Hist. Pl. p. 244.

<sup>e</sup> Murray, l. c.

<sup>f</sup> In hepatis morbis, præstantissima est radix hæc recens, sero lactis, jusculis et apoze-matibus incocta. Præclara identidem inde vidi, ubi alia fefellerunt. Sæpe mihi successit resolvere duritiem hepatis cum jusculo parato e radice rec. *Taraxaci* et fol. rec. acetosæ, in sero lactis coctis, vel in aqua, addito vitello ovi, quod jusculum quotidie per plures septimanas, immo menses, sumpserunt ægroti, propinato simul cremore tartari. Hoc regimen exoptata præstitit etiam in calculo felleo et in ascitide. Mat. Med. tom. 2. p. 649.

and we have various proofs of the good effects of the *Taraxacum* related by different authors, in jaundice<sup>g</sup>, dropsy<sup>h</sup>, pulmonic tubercles<sup>i</sup>, and some cutaneous disorders<sup>k</sup>.

The leaves, roots, flower stalks, and juice of Dandelion, have all been separately employed for medical purposes, and seem to differ rather in degree of strength than in any essential property: therefore the expressed juice, or a strong decoction of the roots have most commonly been prescribed, from one ounce to four, two or three times a day. The plant should be always used fresh; even extracts prepared from it appear to lose much of their power by keeping<sup>l</sup>.

<sup>g</sup> Van Swieten's Com. tom. 3. p. 102. and Boerhaave apud Boretium.

<sup>h</sup> Bergius loc. cit. Bonafas in *Hautesierckü Recueil d'Observ.* tom. 2. p. 360. *Fränk. Samml.* t. 1. p. 226.

<sup>i</sup> Zimmerman, vide Murray, l. c. Haller, l. c. Park. 780.

<sup>k</sup> Leidenfrost *Differt. de Succis. Herb. rec.* p. 27. *Frank. Samml.* l. c. p. 126. Delius's *Diff. de Tarax. aq. teraxaci per fermentationem parata: et in aliis morbis utitur.* *Fe bure Chemie.* 2. p. 408.

Ingreditur cum radice graminis regiam illam ptisanam, cujus formulam Ludovicus XIV. magno pretio redemit. Haller's *Stirp. Hel.* No. 56.

<sup>l</sup> Lewis's *M. M.* 273.

## ARNICA MONTANA.

## MOUNTAIN ARNICA.

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*SYNONYMA.* ARNICA, *Pharm. Lon. & Edin.* DORONICUM AUSTRIACUM QUARTUM, *Clus. Pann.* p. 520. ΔΙΟΥΣΣΗΝΙΖΗ *Re-neaulme*, p. 118. DORONICUM PLANTAGINIS folio alterum, *C. B.* 185. *Tourn. Institut.* 487. DORONICUM GERMANICUM *Park & Ray.* DORONICUM GERMANICUM foliis semper ex adverso nascentibus villosis, *J. B.* III. 19. CALENDULA ALPINA, *Gerard* 740. ARNICA foliis conjugatis, ovatis, integerrimis, *Hal. Stirp. Helv.* No. 90.

*Class* Syngenesia. *Ord.* Polygamia superflua, *L. Gen. Pl.* 958.

*Eff. Gen. Char. Recept.* nudum. *Pappus* simplex. *Corollulæ* radii filamentis 5 absque antheris.

*Sp. Ch.* A. foliis ovatis integris: caulinis geminis oppositis.

THIS plant is very common upon the northern mountains of Germany and Switzerland, and was first cultivated in this country by Mr. P. Miller in 1759. <sup>a</sup> The stalk grows above one foot high, erect, roundish, striated, rough, hairy. The radical leaves are oval, narrow at their bases, and more obtusely lanceolated than the cauline leaves. On the stalk they are sessil, entire, oval, obtusely lance-shaped, and stand in pairs: the flowers are large, yellow, radiated, solitary, terminal, appearing in July: the calyx is imbricated, and consists of a single row of narrow, pointed, rough leaflets: the root is perennial, thick, fleshy, and spreading.

The odour of the fresh plant is rather unpleasant, and the taste acrid, herbaceous, and astringent; a watery infusion of it strikes a

<sup>a</sup> Hortus Kewensis, vol. 3. p. 226.





*Arnica montana*

Published (as the Act directs) by D<sup>r</sup> Woodville Jan<sup>y</sup>. 1. 1790.



black colour by the addition of *sal martis*<sup>b</sup>, and the powdered leaves act as a strong sternutatory.

That the Arnica is a medicine of considerable activity there cannot be a doubt; but how far it deserves the extravagant praises it has received at Vienna, is not for us to determine; either the facts stated by Dr. Collin are not admitted by the physicians of this country, or we are disregarding \* of a remedy of the first importance in the *Materia Medica*.

But as our business is to adduce whatever is recorded of each plant by authors of respectability, (whether of Arnica or *Hemlock*) still the medical reader must form his own judgment of the evidence.

The virtues of this plant<sup>c</sup>, according to Bergius, are emetica, errhina, diuretica, diaphoretica, emmanagoga, and from its supposed power of attenuating the blood, it has been esteemed so peculiarly efficacious in obviating the bad consequences occasioned by falls and bruises, that it obtained the appellation of *panacea lapsorum*<sup>d</sup>; and to this resolvent power its success in sundry diseases has been accounted for, particularly pulmonic complaints, suppression of menses, and visceral obstructions<sup>e</sup>. Of the advantages derived from its use in paralytic and other affections depending upon an interruption or diminution of nervous energy, we have several proofs<sup>f</sup>; and it is observed in these cases, that the recovery is generally preceded by great uneasiness, or acute pain in the parts affected. But it is the

<sup>b</sup> Bergius, m. m. 683

\* The author has not been able to procure this plant from any of the London drug-gifts.

<sup>c</sup> There is a variety of this species with narrower leaves, which is more powerfully medicinal. Gmelin Flor. Sibir. t. 2. p. 153.

<sup>d</sup> Fehrius Eph. N. C. Dec. 1. ann. 9 & 10. Obs. 2. Acta Med. Berolin, Dec. 1. vol. 1. n. 4. vol. 10. p. 80. Dec. 2. vol. 1. p. 66. Buchner, Diff. de genuinis principiis et effectibus Arnicae. Schulzius, M. M. De La Marche Diff. de Arnicae verae usu. Rosenstein. Apot. p. 21. Scopol. Fl. carn. p. 377.

<sup>e</sup> Fehr loc. cit. Brückner, in Sel. Med. Francas. vol. 3. p. 190. Act. Berol. Dec. 1. vol. 9. p. 24. Quarin, Meth. Med. inflam. p. 80. Act. Berol. Dec. 1. vol. 10. p. 82. l. c. Dec. 2. vol. 4. p. 92 & 94. Nebel in Act. nat. cur. vol. 8. Obs. 113. Vater, Diff. de Ictero.

<sup>f</sup> Bergius m. m. Junker Therap. gen. p. 173. Eschenbach Obs. p. 353. & Dr. Collin, Flor. Arnicae Vires, mentions 28 cases of paralysis, and 9 of amaurosis. Aaskow Societ. Med. Havan. vol. 2. p. 162.



extraordinary febrifuge and antiseptic virtue of the Arnica, which have been so highly extolled by Dr. Collin <sup>g</sup>.

It had long been a desideratum of his to find an European plant of equal medicinal powers with the Peruvian bark in fevers of the intermitting and putrid kind; and after several fruitless trials of different simples, at last he had the satisfaction to find them in the Arnica; for by the flowers of this plant, made into an electuary <sup>h</sup> with honey, he cured more than one thousand patients labouring under the different species of intermittent fevers in the Pazman hospital, from December 1771, to July 1774; and during the following winter the Doctor made trial of a watery extract of the flowers, by which he cured thirty quotidians, forty-six tertians, and fifty-eight quartans <sup>\*</sup>.

In putrid fevers the Doctor experienced equal success with the flowers employed in the way of infusion <sup>i</sup>, with which many hundreds of patients were snatched from the very jaws of death. However, there are some cases where the Doctor recommends the root <sup>k</sup> in preference to the flowers, believing the former to possess more cordial, tonic, and antiseptic qualities; and it is accordingly directed in those cases where putridity and debility are more prevalent than fever; also in a malignant dysentery Dr. Collin could relate many hundred instances of the superior efficacy of Arnica root, and his practice in this disease was imitated and confirmed by Dr. Dietl <sup>l</sup>.

Dr. Collin farther ascertains the medicinal powers which he attributes to this root in thirteen cases of gangrenes, where its anti-

<sup>g</sup> Hen. Jos. Collin, physician to the Pazman hospital, De arnicæ in febris, & aliis morbis putridis viribus.

<sup>h</sup> R. Pulv. Flor. Arnicæ drach. ix. mellis q. s. bidui spatii absumendum.

<sup>\*</sup> Dr. Collin is, we believe, the only author who has experienced the good effects of Arnica in intermitting fevers, if we except the two cases stated by Aaskow (l. c.) where it acted as a powerful evacuant. Bergius employed it in quartan intermittents, which were aggravated, rather than bettered, by the use of this medicine, m. m.

<sup>i</sup> R. Flor. arnicæ unc. j. infunde in s. q. aquæ fervidæ per  $\frac{1}{2}$  horam, deinde vase clauso per medium  $\frac{1}{4}$  horæ ebulliant; colat. lib. ij. add. syr. capill. vener. q. s. ad gratiam; et omni bihorio diei sumat unc. ij.

<sup>k</sup> R. Pulv. Rad. Arnicæ unc. ij. digere in phiala alta balneo arena adaptata, exacte clausa, per 12 horas cum aq. q. s. colatur. unc. xxx. adde syr. aelth. unc. iij. m. sumat æger omni bihorio unc. ij. vel iij. And to make this medicine more palatable to the patient, he occasionally added lemon juice, spt. vitriol, or wine.

<sup>l</sup> Physician to the military hospital of invalids, at Vienna.







*Convolvulus Scammonia.*

*Published as the Act directs by D<sup>r</sup> Woodville. Jan 7. 1. 1790.*

septic effects admitted of more evident proof. As the Arnica, when first administered, often excites vomiting, or uneasiness at the stomach, it will be necessary to begin with small doses; but by repeating the medicine two or three times this uneasiness goes off.

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## CONVOLVULUS SCAMMONIA. SCAMMONY BIND-WEED.

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*SYNONYMA.* CONVULVULUS, foliis sagittatis, postice truncatis, pedunculis bifloris. *Roy Lugdb.* 427. CONVULVULUS SYRIACUS. *Morris Hist.* 2. p. 12. SCAMMONIUM SYRIACUM. *Gerard*, 866. *Lobel Icon*, 620. GUMMI-RESINA. SCAMMONIUM. *Pharm. Lond. & Edin.* Σκαμμωνία *Diosc.* Δακρυδιον *Trallian et quorund. Græcor.*

*Class* Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 215.

*Eff. Gen. Ch.* Cor. Campanulata, plicata. *Stigmata* 2. *Caps.* 2-locularis: loculis dispermis.

*Spec. Ch.* C. fol. sagittatis postice truncatis, pedunc. teretibus subtrifloris.

THIS plant grows plentifully about Maraash, Antioch, Edlib, and towards Tripoly in Syria: it was first cultivated in England by Mr. Gerard, in 1597. The root is from three to four feet long, and from nine to twelve inches in circumference, covered with bark of a light grey colour, it is perennial, tapering, branched towards the bottom,  
 No. 1. D and



and contains a milky juice; the stalks are numerous, slender, twining, and spread themselves upon the ground, or neighbouring trees, to the extent of fifteen or twenty feet; the leaves are arrow-shaped, smooth, of a bright green colour, and stand upon long footstalks: the flowers are funnel-shaped, yellowish, plicated, and, according to Dr. Ruffel, placed in pairs upon the pedicles: the calyx is double, consisting of four emarginated leaflets in each row: the capsule is three and sometimes four locular,\* containing seeds of a pyramidical shape. No part of the dried plant possesses any medicinal quality but the root, which Dr. Ruffel administered in decoction, and found it to be a pleasant and mild cathartic.

It is from the milky juice of the root that we obtain the officinal Scammony, which is procured in the following manner by the peasants, who collect it in the beginning of June: “<sup>a</sup> Having cleared away the earth from about the root, they cut off the top, in an oblique direction, about two inches below where the stalks spring from it. Under the most depending part of the slope they fix a shell, or some other convenient receptacle, into which the milky juice gradually flows. It is left there about twelve hours, which time is sufficient for draining off the whole juice: this, however, is in small quantity, each root affording but a very few drams. This juice from the several roots is put together, often into the leg of an old boot, for want of some more proper vessel, where in a little time it grows hard, and is the genuine Scammony.” This concrete is a gummy-resin, generally of a light, shining, grey colour, and friable texture. It is brought from Aleppo and Smyrna; <sup>b</sup> that which comes from the latter place is less valued than the former, and is supposed to be more ponderous and of a deeper colour; but the colour affords no test of the goodness

\* The *Caps 2-locularis* of Linnæus, ought to be corrected.

<sup>a</sup> Dr. Ruffel’s Description of this plant in the Medical Observations and Inquiries, v. 1. p. 18.

<sup>b</sup> The Jews make it their business to go to the places where the Scammony is collected, and there buying it while yet soft, have an opportunity of mixing it with such things as best answers their purpose; as wheat-flower, ashes, fine sand, with all of which Dr. Ruffel found it adulterated. The purest Scammony is therefore the most active and most soluble.

of this drug, which seems to depend entirely upon the purity of the concrete. The smell of Scammony is rather unpleasant, and the taste bitterish and slightly acrid. The different proportions of gum and resin of which it consists, have been variously stated, ° but as proof spirit is the best menstruum for it, these substances are supposed to be nearly in equal parts.

Scammony appears to have been well known to the Greek and Arabian physicians, º and was not only employed internally as a purgative, but also as an external remedy for tumours, scabies, tinea, fixed pains, &c. — Although this drug was seldom given alone, yet we find it was very generally used, º and an ingredient in many † compounds which were formerly held in very great repute. — Hoffman, however, entertained an opinion, that Scammony was a dangerous medicine; “Ego nunquam in praxi mea in usu habui, “nec in posterum habebo; me semper ab istiusmodi venenis “colliquativis abstinens. *Hoff. in Schrod. p. 543.*” But since Boerhaave’s time it has been considered as a safe though stimulating cathartic, and frequently prescribed uncombined with any other substance, yet neither producing tormina nor hypercatharsis. Like other resinous purgatives it is uncertain in its operation, which may be occasioned by the intestines being more or less defended from the action of these stimulants, by the quantity of natural mucus with which they are covered.

• Boulduc Mem de l’Ac. de Sc. 1702. Geoffroy Mat. Med.

• Hippocrates, Dioscorides, Aëtius, Mesue, &c.

º As Diagrydium. Scam defœcatum per succum citroniorum. Extractum spt vin. Extract. diagridii aromaticum. Extract. scam glycyrrhizatum. Elixir Scammon. Scam. vitriolatum, Scam sulphuratum, Scam. rosatum, Infusum scammonii, Diacydonium lucidum scammoniatum. Gelatina cydoniorum laxativa, &c.

† Among these were the Pulvis de Tribus, or Pulvis trium Diabolorum, Pulvis Basilicus, Pulvis Comitis de Warwick, which was afterwards called Pulvis Cornachini, because Marcus Cornachini, professor of medicine at Pisa, recommended it as a panacea, in a book, the title of which is, “*Methodus qua omnes humani corporis affectiones ab humoribus copiâ aut qualitate peccantibus genitæ, tuto, cito, et jucunde curantur.*”

The



The dose of Scammony is generally from three to twelve grains. It is commonly triturated with sugar, almonds, &c. or with a decoction of liquorice, as recommended by the college of Wirtemberg. In the London Pharmacopœia it is ordered in the following compounds:—Pulvis e scammonio compositus. Pulvis e scammonio compositus cum aloë. Pulvis e scammonio cum calomelane. Pulvis e fenna compositus. Extractum colocynthis compositum. And in the Pilulæ ex colocynthide cum aloe of the Edinburgh Pharm,

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## ACONITUM NAPELLUS.

COMMON WOLF's-BANE, or  
MONK's HOOD.

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*SYNONYMA.* ACONITUM, *Pharm. Lond. & Edin. Stœrck tab. 3.*

ACONITUM cœruleum seu Napellus, *Bauh. pin. 183.* ACONITUM caule simplici, spica densa, petiolis unifloris, casside breviter mucronata, *Hal. Stirp. Helv. No. 1197, vires autem, No. 1198.*

ACONITUM verus cœruleus, *Gerard.* ACONITUM, *Spec. 1, Raii.* NAPELLUS, *Matth. Camerar. Dodon. &c.*

*Class* Polyandria. *Order* Trigynia. *L. Gen. Plant. 682.*

*Eff. Gen. Char* Cal. 0. Petala 5: supremo fornicato. *Nectaria* 2, pedunculata, recurva. *Siliquæ, 3 f. 5.*

*Sp. Ch.* A. foliorum laciniis linearibus superne latioribus linea exaratis.

THE root is perennial, turnip-shaped, or more commonly fusiform; the stalk is simple, erect, strong, beset with many leaves, and grows from two to five feet high: the leaves are lobed, deeply  
laciniated,



*Aconitum Napellus*

Published by D. Woodville, Feb. 7. 1. 1790.





laciniated, and stand alternately upon long footstalks, but the upper leaves are almost sessile, and the laciniæ much broader than those towards the bottom of the stem; the superior pagina of the leaf is of a dark green colour, but the under pagina is whitish; the peduncles are generally unifloral, erect, and villous; the flowers terminate the stalk, are without calyces, and grow in a long racemus or spike; each flower consists of five petals, which include two nectaries, the uppermost petal is arched over the lateral ones, so as to appear helmet-shaped, or hooded; they are all of a purplish or deep violet colour: the pistilla, (according to Jacquin) are three, four, and sometimes five. The *Aconitum* is a native of the mountainous and woody parts of Germany, France, and Switzerland; but since the time of Gerard, it has been cultivated for ornament in most of the flower-gardens in this country.

The figure of this plant given by Stoerck, is supposed, by Haller and Bergius to be the *Aconitum Cammarum* of Linnæus: Murray, however, is of a different opinion; and upon comparing Stoerck's *Aconitum* with the *Cammarum* and *Napellus*, as delineated by Jacquin, (*Flor. Aust.*) we have no hesitation in referring it to the latter.\*

Every part of the fresh plant is strongly poisonous, but the root is unquestionably the most powerful, and when first chewed imparts a slight sense of acrimony, but afterwards, an insensibility, or stupor at the apex of the tongue, and a pungent heat of the lips, gums, palate, and fauces, are perceived, followed with a general tremor and sensation of chilliness. Though the plant loses much of its power by drying, yet Stoerck observes that, when powdered and put upon the tongue, it excites a durable sense of heat, and sharp wandering<sup>a</sup> pains, but without redness or inflammation. The juice applied to a wound, seemed to affect the whole

\* In the *Cammarum* the top of the flower rises much higher, and forms a more acute angle; the flowers are of a fainter blue colour, and the racemus is always shorter than that of the *Napellus*.

<sup>a</sup> Reinhold, however, describes the leaves of this plant, when dry, as almost insipid. *Diff. de Aconit. Napello*.



nervous system; <sup>b</sup> even by keeping it long in the hand, or on the bosom, we are told unpleasant symptoms have been produced.<sup>c</sup> That the ancients considered the Aconitum to be the most destructive of vegetable productions, appears from their fanciful derivation of its origin: "ut ab Hecate inventum aut ex Cerberi spuma enatum pronuntiarent;" and Ray says, "Napellus venenorum praesentaneorum facile princeps."<sup>d</sup> The deleterious effects of this plant, like those of most vegetable poisons, are produced by its immediate action upon the nervous energy; for of the different animals<sup>e</sup> which have been destroyed by it, we find but one instance, wherein upon dissection, marks of organic disease<sup>f</sup> were discovered, and this, as well as those mentioned in our former number respecting the Belladonna, we attribute to the action of secondary causes.

The fatal symptoms brought on by this poison, are thus stated by Haller: "Intus adsumtus Napellus vomitum movet, convulsiones, rigorem, vertiginem, maniam, hypercatharses, sursum & deorsum erumpentes, tum ventris tumores, & alia gravissima symptomata, sudorem frigidum, asphyxiam."<sup>g</sup> Stoerck appears to be the first who

<sup>b</sup> The juice was applied to a wound of the finger, which not only produced pains in the hand and arm, but cardialgia, great anxiety, a sense of suffocation; syncope, &c. and the wounded part sphacelated before it came to suppuration. Rödder in Alberti Jurisp. Med. t. 6. p. 724.

<sup>c</sup> If this be admitted, it must be referred to a peculiar idiosyncrasy of the body rather than to the power of the plant. Murray, Appar. Med. vol. 3. p. 12.

<sup>d</sup> Ray observes that the Napellus loses much of its virulency by being transplanted from the mountains into our gardens; and this observation has been confirmed by the experiment of D. Martinus Bernhardus a Berniz, in Ephem. Germ. ann. 2. Observ. 42. (Ray, Hist. Plant. p. 702.) and for farther confirmation see Pet. Joh. Faber in l'auth. l. 1. cap. 43.

<sup>e</sup> The root of the Napellus is an immediate poison to almost all animals, but actual experiments with it have been made upon wolves, cats, dogs, mice, &c. See Wepfer, Hist. de Cicut. p. 176. de Napello. Phil. Transact. vol. 27. p. 488. Sprögel Diff. Exper. circa venena, p. 6. Hillefeld, p. 23. Ehrhart, vide Reinhold, Diff. cit. Cows and Goats, by being forced to eat this plant, perished. Moraeus Fil. in K. Vet. Acad. Handl. 1745. p. 217.

<sup>f</sup> This was a wolf, wherein marks of inflammation of the stomach were discovered. Wepfer, l. c. p. 180.

<sup>g</sup> N. 1198. l. c. These symptoms are collected from a number of fatal instances of its poisonous effects, some of which we shall mention. The root was given by way of experiment

who gave the Wolf's-bane internally, as a medicine; and since his experiments were published, in 1762, it has been generally and often successfully employed in Germany, and the northern parts of Europe, particularly as a remedy for obstinate rheumatisms: and many cases are related where this disease was of several years duration, and had withstood the efficacy of other powerful medicines, as mercury, opium, antimony, cicuta, &c. yet, in a short time, were entirely cured by the Aconitum.<sup>h</sup> Instances are also given us of its good effects in gout, scrophulous swellings, venereal nodes, amaurosis, intermittent fevers, &c.<sup>i</sup> Bergius describes its *Virtus* to be pellens, fudorifera, diuretica, subvertiginosa; *recens* venenata: *Ufus*, rheumatismus, arthritis, malum ischiadicum.

This plant has been generally prepared as an extract or inspissated juice, after the manner directed in the Edinburgh and many of the foreign pharmacopœias,<sup>k</sup> and like all virulent medicines, it should be first administered in small doses. Stoerck recommends two grains of the extract to be rubbed into a powder, with two drams of sugar, and to begin with ten grains of this powder two or three times a day. We find however, that the extract is often given from one grain

experiment to four condemned criminals, two at Rome, in the year 1524, and two at Prague, in 1561, of whom two soon perished, the other two, with great difficulty, recovered. Matthiol. in Dioscorid. p. 768. It has frequently been eaten by mistake for other plants, and proved fatal. Willis de Anima brutor. p. 289. Dodon. Stirp. Pempt. L. 4. p. 442. Bacon, Philos. Transf. vol. 38. p. 284. And the following remarkable fact is said to have happened at Sweden:—A person having eaten some of the fresh leaves of the Napellus, became maniacal, and the surgeon who was called to his assistance declared, that the plant was not the cause of the disorder; and, to convince the company that it was perfectly innocent, he eat freely of its leaves; but he suffered by his temerity, for soon after he died in great agony. Moræus, l. c. 1739. p. 41.

<sup>h</sup> Stoerck libell. de stramon, &c. Contin. Exper. Libell. de Pulsatill. Nig. p. 58. Rosenstein, Hall Epist. vol. 5. p. 174. Collin Observ. parf. 2. Blom Vet. Acad. Handl. 1773. p. 258. Odhelius, ibid. 1776. p. 68. Haft, Med. Virkets tilstand, p. 307. Ribe, vide Reinhold Diff. p. 37. Comment. de rebus, vol. 2. p. 240. Diff. de usu salutari Extr. Acon. in Arthritide pref. Böhmer Hal. 1768. a pag 10 ad 13. Aug. Phil. Gesner. Beobacht a. d. Arzn. vol. 1. p. 196. Tode, Med. chir. Bib. vol. 2. P. 1. p. 120. Tritze Mediz. Annalen. vol. 1. p. 327. Stöller, Beob. u. Erf. p. 146. Stoll Rat. Medend. P. 3. p. 167.

<sup>i</sup> See the authors referred to above.

<sup>k</sup> Its efficacy is much diminished on being long kept.



to ten for a dose, and Stoll, Schenckbecher, and others, increased this quantity very considerably. Instead of the extract, a tincture has been made of the dried leaves, macerated in six times their weight of spirits of wine, and forty drops given for a dose.

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VERONICA BECCABUNGA. BROOKLIME SPEEDWELL.

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*SYNONYMA.* BECABUNGA, *Pharm. Lond. Curt. Flor. Lond.*

VERONICA foliis ovatis serratis glabris ex alis racemosa, *Hal. Stirp. Helv.* n. 534. Anagallis Aquatica vulgaris five Becabunga, *Park. Theat.* 1236. Anagallis Aquatica minor, folio subrotundo. *Baub. pin.* 252. Anagallis feu Becabunga. *Gerard,* 620.

*Class* Diandria. *Ord.* Monogynia. *L. Gen. Plant.* 25.

*Eff. Gen. Ch.* *Cor.* Limbo 4-partito, lacinia infima angustiore.  
*Capsula* bilocularis.

\*\* *Corymboso-racemosæ.*

*Sp. Ch.* V. racemis lateralibus, fol. ovatis planis, caule repente.

THE root is perennial, creeping, jointed, and from each joint sends forth many long slender fibres; the leaves are thick, oval, smooth, obtusely serrated, of a pale-green colour, and stand upon the stem in pairs, either sessily, or upon very short footstalks; the stem is round, jointed, creeping, smooth, succulent, often of a reddish brown colour, and from eight to twelve inches high; the racemi or flower spikes, are lateral, opposite, bracteated, and terminated by  
the



*Veronica Beccabunga.*

*Published by D<sup>r</sup> Woodville, Feb<sup>r</sup> 1. 1790.*





the flowers, which are of a faint blue colour, and divided into four small roundish leaves; the calyx is quadripartite. This plant is very common in ditches and shallow streams.

The leaves and stem of Brooklime have a bitterish subastringent taste, but manifest little or no acrimony, nor any peculiar odour: by chemical experiments they appear to be subacid, and possess some degree of astringency; these qualities, however, are common to almost all fresh vegetables, and afford no proof of their medical powers.

This plant was formerly considered of much use in several diseases, and was applied externally to wounds and ulcers; but if it have any peculiar efficacy, it is to be derived from its antiscorbutic virtue. As a mild refrigerant juice it is preferred where an acrimonious state of the fluids prevails, indicated by prurient eruptions upon the skin, or in what has been called the hot scurvy; it is ordered in the London Pharmacopœia as an ingredient in the *succus cochliariæ compositus*, probably with a view to correct the pungency of the crests. Ruttie says, “*Succus ejus saponaceus est, aperiens, & majori copia sumptus, alvum movet commodissime.*” We must, however, acknowledge, that we should expect equal benefit from the same quantity of any other bland fresh vegetable matter taken into the system. To derive much advantage from it, the juice ought to be used in large quantities, or the fresh plant eaten as food.

FERULA ASSAFŒTIDA. ASAFŒTIDA GIGANTIC  
FENNEL.

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*SYNONYMA.* Planta umbellifera, tripedalis, erecta, ramosa, glauca, flore luteo, *Hope; Phil. Transf. vol. 75, p. 36.* ASAFŒTIDA umbellifera Levestico affinis, foliis instar Pœoniæ ramosis; caule pleno maximo; femine foliaceo nudo solitario; Brancæ ursinæ ‡ vel pastinacæ simili; radice asam foetidam fundente. *Kaempfer Amœnit. Exot. p. 535.* Gummi-resia, Asafœtida, *Pharm. Lond. & Edin.* Hingiseh *Persarum.* Altiht *Arabum,* et a quibusdam creditur Σιλφιον vel οποι σιλφιος *Dioscor. Theophrast. Hippoc. &c.* Lafer et Laserpitium, *Latinorum.*

*Class* Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 343.

*Eff. Gen. Ch.* *Fructus* ovalis, compresso-planus, striis utrinque 3.

*Spec. Ch.* F. Foliis alternatim sinuatis obtusis.

LINNÆUS has given the specific character according to Kaempfer's representation of the Asafœtida plant, which differs in many respects from the figure here annexed, which is taken from that communicated to the Royal Society by the late Dr. Hope, and published in the 75th volume of the Philosophical Transactions: and this difference being so considerable as to indicate more than a mere botanical variety, Sir Joseph Banks thinks it probable that Asafœtida may be produced from different species of the ferula. Dr. Hope was undoubtedly the first who cultivated the Asafœtida plant in Britain, or perhaps in Europe, and his accurate description of it, as it grew

‡ Branca ursina is the Heracleum Sphondylium of Linnæus.





*Ferula Asafoetida*

Published by D. Woodville Feb. 1, 1790.



in the botanical garden near Edinburgh, in the year 1784, is inserted below.\* Though Asafœtida was formerly in great estimation both as a medicine and a sauce, yet we had no particular account of the plant till Kaempfer returned from his travels in Asia, and published his *Amœnitates Exoticæ* in the beginning of the present century. As he saw the plant growing, and describes it from his own observation, we have collected the following general description from the history he has given :

It is a native of Persia, the root is perennial, tapering, ponderous,

\* PLANTA umbellifera, tripedalis, erecta, ramosa, glauca, flore luteo.

*Radix* perennis.

*Folia* radicalia sex, procumbentia, trilobo-ovata, multoties pinnatim divisa; foliolis incis, subacutis, subdecurrentibus; petiolo communi superne plano, linea elevata longitudinaliter per medium decurrente.

*Caulis* bipedalis, erectus, teretiusculus, annuus, leviter striatus, glaber, nudus præter unam circa medium foliorum imperfectorum conjugationem; petiolo membranaceo concavo.

*Rami* nudi, patuli; quorum tres inferi, alterni, sustinentur singuli folii imperfecti petiolo membranaceo concavo.

Quatuor intermedii verticillati sunt. Supremi ex apice caulis octo, quorum interni erecti.

Omnes hi rami summitate sustinent umbellam compositam sessilem terminalem, et præterea 3—6 ramulos externe positos, umbellas compositas ferentes.

Hoc modo, rami inferiores sustinent 5, raro 6 ramulos; intermedii 3 vel 4; superiores 1 et 2.

CAL. *Umbella universalis* radiis 20—30 constat.

—— *partialis* flosculis subsessilibus 10—20.

*Umbella composita* sessilis convexo-plana.

——, —— pedunculata hæmispherica.

*Involucrum universale* nullum.

—— *partiale* nullum.

*Perianthium proprium* vix notabile.

COR. *universalis* uniformis.

Flosculi umbellæ sessilis fertiles.

—— ——— pedunculatæ plerumque abortiunt.

*propria* petalis quinque æqualibus, planis, ovatis: primo patulis, dein reflexis, apice ascendente.

STAM. *Filamenta* 5, subulata, corolla longiora, incurvata: *Antheræ* subrotundæ.

PIST. *Germen* turbinatum, inferum.

*Styli* duo, reflexi.

*Stigmata* apice incrassata.

PER. nullum: fructus oblongus, plano-compressus, utrinque 3 lineis elevatis notatus est.

SEM. duo, oblonga, magna, utrinque plana, 3 lineis elevatis notata.

Planta odorem alliaceum diffundit. Folia, rami, pedunculi, radix, truncus, secti succum fundunt lacteum, sapore et odore Asæ fœtidæ.

and



and increases to the size of a man's arm or leg, covered with a blackish coloured bark, and near the top beset with many strong rigid fibres; the internal substance is white, fleshy, and abounds with a thick milky juice, yielding an excessively strong fetid alliaceous smell; the stalk is simple, erect, straight, round, smooth, striated, herbaceous, about six or seven inches in circumference at the base, and rises luxuriantly to the height of two or three yards, or higher;<sup>a</sup> radical leaves six or seven, near two feet long, bipinnated, pinnulæ alternate, smooth, variously sinuated, lobed, and sometimes lance-shaped, of a deep green colour, and fetid smell; the umbels are compound, plano-convex, terminal, and consist of many radii: the seeds are oval, flat, foliaceous, of a reddish brown colour, rough, marked with three longitudinal lines, have a porraceous smell, and a sharp bitter taste: the petals Kaempfer did not see, but supposes them in number five, minute, and white.

This plant is said to vary much according to the situation and soil in which it grows, not only in the shape of the leaves, but in the peculiar nauseous quality of the juice which impregnates them; this becomes so far altered that they are sometimes eaten by the goats.

Asafœtida is the concrete juice of the root of this plant, which is procured in the following manner on the mountains in the provinces of Chorasaan and Laar in Persia. At that season of the year when the leaves begin to decay, the oldest plants are selected<sup>b</sup> for this purpose. First the firm earth which encompasses the root, is rendered light by digging, and part of it cleared away, so as to leave a portion of the upper part of the root above the ground; the leaves and stalk are then twisted off and used with other vegetables for a covering to screen it from the sun, and upon this covering a stone is placed to prevent the winds from blowing it down; in this state the root is left for forty days, after which the covering is removed, and the top of the root cut off transversely; it is then screened again from the sun for forty-eight hours, which is thought a sufficient time for the juice to exude upon the wounded surface of the root, when the juice is scraped off by a proper instrument, and exposed to the sun

<sup>a</sup> *Caulis*, in orgyjæ, sesquiorgyjæ, vel majorem longitudinem luxuriosè exurgens, crassitie in imo quanta manûs complexum superat.

<sup>b</sup> *Radix* quadrienniô minor parum lactescit & nunquam secatur.

to harden: this being done, a second transverse section of the root is made, but no thicker than is necessary to remove the remaining superficial concretions which would otherwise obstruct the farther effusion of fresh juice; the screening is then again employed for forty-eight hours, and the juice obtained a second time, as before mentioned. In this way the *Asafœtida* is eight times repeatedly collected from each root; observing, however, that after every third section, the root is always suffered to remain unmolested for eight or ten days, in order that it may recover a sufficient stock of juice. Thus, to exhaust one root of its juice, computing from the first time of collecting it to the last, a period of nearly six weeks is required; when the root is abandoned, and soon perishes.

The whole of this business is conducted by the peasants who live in the neighbourhood of the mountains where the drug is procured; and as they collect the juice from a number of roots at the same time, and expose it in one common place to harden, the sun soon gives it that consistence and appearance in which it is imported into Europe.

*Asafœtida* has a bitter, acrid, pungent taste, and is well known by its peculiar nauseous fetid smell, the strength of which is the surest test of its goodness; this odour is extremely volatile, and of course the drug loses much of its efficacy by keeping. According to Kaempfer's account, the juice is infinitely more odorate when recent than when in the state brought to us: *Affirmare ausim, unam drachmam recens effusam, majorem spargere foetorem, quàm centum libras vetustioris quem siccum venundant aromatarii nostrates.* "We have this drug in large irregular masses of a heterogeneous appearance, composed of various shining little lumps or grains, which are partly whitish, partly of a brownish or reddish, and partly of a violet hue. Those masses are accounted the best which are clear, of a pale reddish colour, and variegated with a great number of fine white tears. *Asafœtida* is composed of a gummy and a resinous substance, the first in largest quantity. Its smell and taste reside in the resin, which is readily dissolved and extracted by pure spirit, and, in a great part, along with the gummy matter, by water.<sup>c</sup>"

<sup>c</sup> Lewis's Mat. Med.

*Asafoetida* is a medicine in very general use, and is certainly a more efficacious remedy than any of the other fetid gums: it is most commonly employed in hysteria, hypochondriasis, some symptoms of dyspepsia, flatulent colics, and in most of those diseases termed nervous: but its chief use is derived from its antispasmodic effects; and it is thought to be the most powerful remedy we possess for those peculiar convulsive and spasmodic affections which often recur in the first of these diseases, both taken into the stomach and in the way of enema. It is also recommended as an emmenagogue, anthelmintic, expectorant,<sup>d</sup> antiasthmatic, and anodyne. Where we wish it to act immediately as an antispasmodic, it should be used in a fluid form, as that of tincture.

In the London Pharmacopœia, a spirituous tincture of it is directed, and it is also an ingredient in the *Pilulæ e Gummi*. In the Edinburgh Pharmacopœia, *Asafoetida* is ordered in the *Tinctura fuliginis*, in the *pilulæ gummosæ*, and in the form of tincture with the *Spt. Sal. ammon. vinos.*

<sup>d</sup> Dr. Cullen prefers it to the Gum Ammon as an expectorant. *Asafoetida* should therefore have a double advantage in spasmodic asthmas.

## TORMENTILLA







*Tormentilla erecta*

Published by Dr. Woodville. Feb. 1. 1790.

TORMENTILLA ERECTA. COMMON TORMENTIL, Or  
UPRIGHT SEPTFOIL.

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*SYNONYMA.* TORMENTILLA, *Pharm. Lond. & Edin.* TORMENTILLA OFFICINALIS, *Curt. Flor. Lond.* Fragaria tetrapetala, foliis caulinis sessilibus quinatis. *Hal. Stirp. Helv.* n. 1117. TORMENTILLA sylvestris, *Baub. Pin.* 326. Pentaphyllum aut potius Heptaphyllum, flore aureo tetrapetalo, Tormentilla dictum. *Hist. Oxon.* II. 190.

*Class* Icosandria. *Ord.* Polygynia. *L. Gen. Plant.* 635.

*Ess. Gen. Char.* *Cal.* 8-fidus. *Petala* 4. *Sem.* subrotunda, nuda, receptaculo parvo exsucco affixa.

*Spec. Char.* T. caule erectiusculo, foliis sessilibus.

THE root is perennial, thick, roundish, irregularly conical, knobbed, and covered with bark of a dark brown colour; the internal substance is dense, and has a reddish tinge; it sends forth many stems, which grow about a span high; they are round, slender, firm, somewhat hairy, more or less erect, and branched towards the top. The leaves upon the stalk are generally divided into seven, but those upon the branches are commonly five; of these, three are larger than the others; they are all of an elliptical shape, deeply serrated, villous, and the upper surface is of a deeper green colour than the under. The flowers stand singly upon long peduncles, which spring from the axæ of the leaves, each flower consisting of four small, roundish, emarginated, yellow petals; the calyx is cut into eight unequal segments; the pistilla are commonly eight, and contain as many seeds. This plant is common in dry pastures, and usually flowers in June. It is distinguished from the Tormentilla reptans, by its sessile leaves, its smaller petals, and its more erect stem.

The



The root is the only part of the plant which is used medicinally; it has a strong styptic taste, but imparts no peculiar sapid flavour. As a proof of its powerful astringency, it has been substituted for oak bark in the tanning of skins for leather.<sup>a</sup> This root has been long held in great estimation by physicians, as a very useful astringent; and as the resin<sup>b</sup> it contains is very inconsiderable, it seems more particularly adapted to those cases where the heating and stimulating medicines of this class are less proper; as phthifical diarrhœas, diarrhœa cruenta, &c. Dr. Cullen<sup>c</sup> thinks “it has been justly commended for every virtue that is competent to astringents,” and says, “I myself have had several instances of its virtues in this respect; and particularly I have found it, both by itself and as joined with gentian, cure intermittent fevers; but it must be given in substance, and in large quantities.” Rutty recommends it in these words: “*Ulcera vetera & putrida sanantur vino vel aqua decocta collutione & inspersu. In vino cocta optime deterget & roberat, in ulceribus scorbuticis oris, gutturis, & faucium ac in gingivis dissolutis, sanguinem stillantibus. Decocta ad appetitum deperditum maxime valet, tonum ventriculi restituens, & fordes ejus abstergens. Non est vegetabile quod in fluxionibus alvi efficacius sit. In dysenteria epidemica quidam in ore tenent ad præcavendum contagium. In fluxu sanguinis, fluore albo, & mictu involuntario valet.*”<sup>d</sup>

This root may be given in powder from half a dram to one dram or more for a dose, but it is more generally given in decoction, and the following form is recommended by Lewis: An ounce and an half of the powdered root is directed to be boiled in three pints of water to a quart, adding, towards the end of the boiling, a dram of cinnamon: of the strained liquor, sweetened with an ounce of any agreeable syrup, two ounces or more may be taken four or five times a day.

Tormentil is ordered in the *pulvis e creta compositus* of the London Pharmacopœia.

<sup>a</sup> Bartholini Act. Med. Hafn. v. 1. p. 88. and it has been observed, that the leather has been perfected in less time than when oak bark was used. Mus. Rust. vol. 2. n. 12. p. 51. <sup>b</sup> It gives out its astringency both to water and rectified spirit, most perfectly to the latter. The extracts obtained by inspissation, are intensely styptic, the spirituous most so. Lewis's Mat. Med. 654.

<sup>c</sup> Cullen's Mat. Med. vol. 2. p. 36.

<sup>d</sup> Rutty's Mat. Med. 521.





*Hypericum perforatum*  
Published by D<sup>r</sup> Woodville Feb 7. 1. 1790.



# HYPERICUM PERFORATUM. PERFORATED St. JOHN'S WORT.

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*SYNONYMA.* *HYPERICUM*, *Pharm. Lond.* *HYPERICUM* caule terete, alato, ramosissimo, foliis ovatis perforatis. *Hal. Stirp. Helv.* n. 1037. *HYPERICUM* vulgare five perforata, caule rotundo, foliis glabris. *J. Baubin III.* 382. *HYPERICUM* vulgare, *Baub. pin.* 279. *Raii Synop.* 342.

*Class* Polyadelphia. *Ord.* Polyandria. *L. Gen. Plant.* 902.

*Eff. Gen. Ch.* *Cal.* 5-phyllus. *Petala* 5. *Neét.* 0. *Capsula.* *Aiton's Hortus Kewensis.*

*Spec. Ch.* *H.* Floribus trigynis, caule ancipiti, fol. obtusis pellucidopunctatis.

THIS species of the *Hypericum* generally grows to the height of a foot and a half; the root is perennial, ligneous, divided and subdivided into many small branches, and covered with a straw-coloured bark; the stalks are round, smooth, of a light colour, and towards the top send off many opposite floriferous branches; the leaves are without footstalks, and placed in pairs; they are entire, oval, and beset with a great number of minute transparent vesicles, || which have the appearance of small perforations through the disc, and hence the specific name, *perforatum*.

The flowers are numerous, pentapetalous, terminal, of a deep yellow colour, and grow in a corymbus, or in clusters, upon short

|| *Folia enim innumeris scatent foraminibus, iisque adeo minutis, ut visum effugiant, nisi ipsa folia sole objecta inspiciantur.* *Matthiol. in Dioscord.* p. 668. And these vesicles, or glands, have been found to contain an essential oil of a terebinthinate quality. *Geoffroy Mat. Med.* Gadd thinks that it approaches nearer to the gum-resin, *Lac. Vet. Acad. Handl.* 1762. p. 119.

No. 2.

H

peduncles;

peduncles ; each petal is of an irregular oval shape, and on the under side near the apex, is marked with many blackish dots ; the calyx consists of five persistent acute leaves ; the stamina are numerous, and commonly unite at their bases into three portions, or bundles ; the antheræ are yellow, and marked with a small black gland ;\* the styli are three, and the capsule has three cells, which contain many small oblong brownish seeds. It grows commonly in woods and uncultivated grounds, and flowers in July.

Bergius describes the *Hypericum quadrangulum* instead of the *perforatum*, and thinks it the better officinal plant. “ In pharmacopoliis nostris indiscrete colligunt *Hypericum perforatum* & *quadrangulum* ; quod perinde quoque esse poterit, cum ambæ species puncta nigrecantia gerant ; quadrangulum vero plurima.”<sup>a</sup> *Hypericum* has a bitterish subastringent taste, and a sweetish smell. It was in great repute with the antients, who prescribed it in hysteria, hypochondriasis, and mania : they also imagined that it had the peculiar power of curing demoniacks, and thence obtained the name of *Fuga dæmonum* :<sup>b</sup> it was also recommended internally for wounds, bruises, ulcers, hæmoptysis, mictus cruentus, gravel, dysentery, agues, worms,<sup>c</sup> and outwardly as an anodyne, and as a discutient and detergent. However it is now very rarely used, and its name is omitted in the *Materia Medica* of the last edition of the *Edinburgh Pharmacopœia*. In the *London Pharmacopœia* the flowers only are directed to be used, as containing the greatest proportion of the resinous oily matter in which the medical efficacy of the plant is supposed to reside. The dark puncta of the petals and the capsules, afford this essential oil, which is contained in minute vesicles, or glands, and gives a red colour to rectified spirit, and to expressed oils : the latter has been long known in the shops by the name of *Oleum Hyperici*.<sup>d</sup>

\* Mr. Curtis observes, that a little black gland on the anthera, distinguishes this species at one view. Flor. Lond.

<sup>a</sup> Bergius Mat. Med. 641.

<sup>b</sup> Scripsere quidam *Hypericum* adeo odisse dæmones, ut ejus suffitu statim avolent. Matthiol. l. c.

<sup>c</sup> See Haller, l. c. Alston's Mat. Med. vol. 2. p. 150. Bergius, l. c. Murray's Appar. vol. 3. p. 518.

<sup>d</sup> This colouring matter gives a good die to wool. Gadd. l. c. alique.







*Zingiber*  
*Anemum*  
 Published by D<sup>r</sup> Woodville, March 1 1790.

## AMOMUM ZINGIBER. NARROW-LEAVED GINGER.

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*SYNONYMA.* ZINGIBER, *Pharm. Lond. & Edin.* AMOMUM ZINGIBER, *Jacquin Hort. Vindob. vol. 1. t. 75.* ZINGIBER, *Browne's Jam. 119, Sloane's Jam. 1. p. 163.* *Inschi. Rheed. Mal. Z. angustiori folio, &c. Pluk. Alm.* ZINGIBER MAJUS, *Rumph. Amb. 5. p. 156.* ζιγγίβρις, *Dioscorid.* ζιγγίβρις, *Galen.*

*Class.* Monandria. *Order.* Monogynia. *L. Gen. Plant. 2.*

*Eff. Gen. Ch.* Cor 4-fida: lacinia prima patente.

*Sp. Ch.* A. scapo nudo, spica ovata.

THE root is perennial, firm, knotted, of a compressed roundish form, beset with transverse rugæ, covered with ash coloured bark, partly of a purplish tinge, and sends forth many long fibres and off-sets; the internal substance of the younger roots is softish, fleshy, and greenish; of the older, it is compact, fibrous, whitish, and when powdered has a yellowish appearance: the stalks are about three feet high, round, inclosed in an imbricated membraneous sheathing; the leaves are sword-shaped, smooth, pointed, entire, and stand alternately upon the sheathes of the stalk; the scapus, or flower-stem, rises about a foot high, it is erect, round, alternately sheathed like the stalks, without leaves, and terminates in an oval, obtuse, bracteal, imbricated spike; the corollæ, or flowers, appear between the bracteal scales of the spike, two or three at a time; they are of a dingy yellow colour, monopetalous, tubular, and cut into three unequal, acute, segments, which have their points curled backwards; the nectary occupies the faux or mouth of the tube of the corolla,



and has a bilabiated appearance; the lip is obtusely trifid, of a reddish purple colour, and marked with many yellowish dots: but what seems like the upper lip is the stamen, or filament, which is convex outwardly, concave within, and gradually tapers from its base to its apex, where it is coloured like the nectary. The antheræ are two, oblong, whitish, and lodged together in the cavity of the stamen: the style is long and filiform: the stigma obtuse and villous: the capsule is three-celled, and contains many seeds.

The Ginger plant is a native of the East-Indies, <sup>a</sup> and is said to grow in the greatest perfection on the coast of Malabar and Bengal;<sup>b</sup> but it is now plentifully cultivated in the warmer parts of America,<sup>‡</sup> and in the West-India islands, from whence chiefly it is imported into Europe. In 1731, it was first introduced into this country by Mr. P. Miller, <sup>c</sup> and is still carefully cultivated in the dry stoves of the curious. The flowers have a sweet fragrant smell, and the leaves and stalks, especially when bruised, also emit a faint spicy odour, but the hot acrid aromatic taste is entirely confined to the root.

“ In Jamaica, Ginger attains its full height, and flowers about August or September, and fades about the close of the year. When the stalks are entirely withered, the roots are in a proper state for digging: this is generally performed in the months of January and February. After being dug, they are picked, cleansed, and gradually leached, or scalded in boiling water; they are then spread out, and exposed every day to the sun, till sufficiently dried; and after being divided into parcels of about 100lb. weight each, they are packed

<sup>a</sup> The following observation, made by Rumphius, seems however to deserve some notice: Quondam omne Zingiber petebatur ex illa Africæ parte, quæ mari rubro adjacet tam intra quam extra illud, tum Arabia Trogloditica dicta, cujus incolæ hodie ab Arabibus vocantur *Zingi* seu *Zangi* h. e. nigri seu adusti Æthiopes, unde & nomen Zingiber seu Zingibel ortum duxit, ac si disceretur, radices ex Æthiopia, atque hinc jam innotuit antiquis etiam scriptoribus, uti *Dioscorid. lib. 2. cap. 154. Galeno. lib. 6. med. simp.* ubi dicit Zingiber deferri ex Barbaria, per quam vocem intelligenda est orientalis Africæ plaga. vide *Herb. Amboin. vol. 5, p. 157.* <sup>b</sup> Rumph. l. c. <sup>‡</sup> India Orientali per Hispanos ac præsertim per Franciscum de Mendosa, filium imperatoris Anthonii de Mendosa cum aliis aromaticis herbis in novam Hispaniam deductum est, teste *Monardo simp. Medic. cap. 18.* Rumphius, l. c.—Upon the death of Mendosa, these plants were neglected, and all lost but the Ginger. Ginger is said by some to grow wild in America, but Jacquin says, “ Sylvestrem in America non vidi.”

<sup>c</sup> Aiton's Hort. Kewen.



in bags for the market: this is called the Black Ginger."<sup>d</sup> White Ginger is the root of the same plant, but instead of the roots being scalded, by which they acquire the dark appearance of the former, each root is picked, scraped, separately washed, and afterwards dried with great care; of course more than a double expense of labour is incurred, and the market price is proportionably greater.\* Black Ginger loses part of its essential oil by being thus immersed in boiling water;<sup>e</sup> on this account it is less useful for medical and other purposes than the white, which is always good when perfectly sound and free from worm-holes: but that imported from the East-Indies is stronger than any we have from Jamaica. Ginger gives out its virtues perfectly to rectified spirit, and in a great measure to water. According to Lewis,<sup>f</sup> its active principles are of a remarkably fixed nature; for a watery infusion of this root being boiled down to a thick consistence, dissolved afresh in a large quantity of water, and strongly boiled down again, the heat and pungency of the root still remained, though with little or nothing of its smell. Ginger is generally considered as an aromatic, less pungent and heating to the system, than might be expected from its effects upon the organs of taste. Dr. Cullen thinks, however, that there is no real foundation for this remark.<sup>g</sup> It is used as an antispasmodic and carminative. The cases in which it is more immediately serviceable, are flatulent colics, debility and laxity of the stomach and intestines, and in torpid and phlegmatic constitutions to excite brisker vascular action. It is seldom given but in combination with other medicines. In the Pharmacopœias it is directed in the form of a syrup and a condiment,<sup>h</sup> and in many compositions it is ordered as a subsidiary ingredient.

<sup>d</sup> Long's History of Jamaica, p. 700.

\* Rumphius remarks also, "*Rubrae speciei radices crassiores sunt, magisque nodosæ, externe plerumque cinerea primum, atque sub hac purpurea rubente obductæ pellicula, uti & ipsarum caro ad oras rubet. &c. l. c.*"

<sup>e</sup> We mention this on the authority of Jacquin, vide Hort. Vindob. vol. 1, No. 75.

<sup>f</sup> Mat. Med. Ackin's edition, p. 687. <sup>g</sup> Cullen's Mat. Med. vol. 2, p. 206.

<sup>h</sup> For this purpose the root should not be older than four or five months. Of the very young roots the aromatic taste is peculiarly grateful. "*Junior recens crudaque radix in Martinica in mensis apponitur, parvaque ejusdem portio solet cum bubula elixa comedi. Est etiam tunc insigniter acris, sed aroma longe gratius possidet, quam exsiccata.*" Jacquin. l. c.

## BUBON GALBANUM.      LOVAGE-LEAVED BUBON.

*SYNONYMA.* BUBON GALBANUM. *Jacquin Hort. Vindob. vol.*  
*3, p. 21.* ANISUM AFRICANUM FRUTESCENS, FOLIO ANISI,  
 GALBANIFERUM. *Pluken. Alm. p. 31, t. 12.* FERULA AFRICANA  
 GALBANIFERA, FOLIO ET FACIE LIGUSTICI. *Herm. Parad. p.*  
*163. t. 163.* GUMMI-RESINA. GALBANUM. *Pharm. Lond. & Edin.*  
*καλβάνη Dioscorid. Γαλβνὴ Græc.*

*Class* Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 350.

*Eff. Gen. Ch.* *Fructus* ovatus, striatus, villosus.

*Sp. Ch.* B. foliolis rhombeis dentatis striatis glabris, umbell. paucis. L.  
 B. Foliolis ovato-cuneiformibus acutis argute ferratis, umbellis paucis,  
 feminibus glabris, caule frutescente glauco. *Aiton's Hort. Kewen.*

THE stalk is shrubby, several feet high,<sup>a</sup> slender, purplish, covered with a glaucous-coloured exudation,<sup>b</sup> round, bending, knotted or jointed, towards the bottom woody and naked, but towards the top sending off leaves and branches; the compound leaves rise from the striated sheathes of the stem, they are subtripinnated, the uppermost subbipinnated, and have strong round ribs; the simple leaves are rhomboidal, acute, thickish, of a sea-green colour, veined, subtrilobed, cut, or irregularly ferrated, but near the base entire, and some leaves upon the upper branches are somewhat wedge-shaped; the

<sup>a</sup> Jacquin says five feet or more; but this plant is now growing in the King's garden at Kew, four yards high.

<sup>b</sup> This observation applies to the younger plants, or to the upper and softer part of the stalk.





*Bubon Galbanum.*

Published by D<sup>r</sup> Woodville March 1. 1700.





principal umbel terminates the stem, and is large, plano-convex, and composed of numerous radii; the lateral umbels are few, and grow upon slender pendent branches; the leaflets of the general involucre are about twelve, narrow, lanceolated, membranous, whitish, and bent downwards; of the partial involucre they are six, of the same shape and patent. The flowers are all hermaphrodite, fertile, first open at the circumference of the umbel, and followed successively by those towards the centre; the petals are equal, patent, have their points turned inwards, and are of a greenish yellow colour; the stamina are greenish, longer than the petals, and the antheræ are yellow; the germen is round and narrow at the base, the styles are two, short and tapering; the seeds are two, brownish, oval, with smooth uneven surfaces, and marked with three elevated lines. The whole plant is smooth, has an aromatic smell, and an acrid biting taste. It is a native of Africa, about the Cape of Good Hope, and flowers in June and July. It was first introduced into Britain by Mr. John Gerard in 1596,<sup>c</sup> and all the four species described by Linnæus have been since cultivated by Mr. Miller. Through the industry of Mr. Masson, a new species of the Bubon (the lævigatum) has been discovered at the Cape of Good Hope, and is now in the Royal garden at Kew. Notwithstanding we have represented the Bubon Galbanum as the plant yielding the officinal drug; yet it is still a matter of doubt which species of these umbelliferous plants really produces it; and although we have referred to Herman's *Ferula Africana*, yet we wish to observe, that he thought this matter still uncertain.<sup>d</sup> It seems highly probable that Galbanum is obtained from different species of the Bubon,<sup>e</sup> though, upon the authority of Linnæus, the London, Edinburgh, and other medical colleges, confine their reference to the species we have figured.

The juice is obtained partly by its spontaneous exudation

<sup>c</sup> Aiton's Hort. Kew. <sup>d</sup> *Genuina illa planta, quæ Galbanum officinarum fundit, nostri sæculi Botanicis nondum innotuit. Ferulaceam esse veteres docent omnes, quænam vero species sit, non constat.* Parad. Bat. l. c.

Hermann is certainly a good authority; he was an intelligent physician, and practised many years in the East-Indies, about the latter end of the last century, and also at the Cape of Good Hope: his judgment therefore, as well as his fidelity, is at least equal to that of Plukenett's, which Linnæus prefers.

<sup>e</sup> *Plures extare possunt stirpes, quæ succum Galbano similem stillant, ut de variis lachrymis quæ inter se conveniunt & è diversis stirpibus leguntur, nobis compertum est.* Herm. l. c.

from the joints of the stem, but more generally and in greater abundance by making an incision in the stalk a few inches above the root, from which it immediately issues, and soon becomes sufficiently concrete to be gathered.

Galbanum is commonly imported into England from Turkey, and from the East-Indies, in large softish ductile pale-coloured masses, which by age acquire a brownish yellow appearance; these are intermixed with distinct white grumes or tears, which are accounted the best part of the mass; but the separate hard tears are externally of a ferruginous colour, and always preferred to the mass itself. Geoffroy distinguishes the former into *Galbanon en larmes*, and the latter into *Galbanon en pains*. Spielman mentions a liquid sort of Galbanum, which is brought from Persia, “Prostat etiam interdum Galbanum liquidum ex Persia, consistentia terebinthinæ instructum, cui multæ fæces nigræ commixtæ sunt, tempore ad fundum secedentes, odorem resinæ, nunquam Galbani, habet.”<sup>f</sup> Galbanum has a strong unpleasant smell, and a warm bitterish acrid taste; “like the other gummy resins it unites with water by trituration into a milky liquor, but does not perfectly dissolve, as some have reported, in water, vinegar, or wine. Rectified spirit takes up much more than either of these menstrua, but not the whole: the tincture is of a bright golden colour. A mixture of two parts of rectified spirit, and one of water, dissolves all but the impurities, which are commonly in considerable quantity.”<sup>g</sup>—In distillation with water, the oil separates and rises to the surface, in colour yellowish, in quantity about one-twentieth of the weight of the Galbanum. Newman observes, that the empyreumatic oil is of a blue colour, which changes in the air to a purple.

Galbanum, medicinally considered, may be said to hold a middle rank between Asafoetida and Ammoniacum; but its fetidness is very inconsiderable, especially when compared with the former, it is there-

<sup>f</sup> Mat. Med. p. 560.      <sup>g</sup> Lewis’s Mat. Med. by Dr. Aikin, p. 314.

The Galbanum colour was a prevailing fashion with the Romans.

Reticulumque comis auratum ingentibus implet,

Cœrulea indutus scutulata, aut galbana rafa;

JUVENAL, Sat. 2, l. 96.

And Martial, speaking of an effeminate person, says, Galbanos habet mores. Lib. 1. Epig. 97. — Commentators differ about the colour of Galbana Rafa; we have described the Galbanum flower to be of a greenish yellow.

fore,







*Lupinus luteus.*

Published by D<sup>r</sup> Woodville, March 1. 1790.

fore accounted less antispasmodic, nor is it supposed to affect the bronchial glands so much as to have expectorant powers equal to those of the latter; it has the credit however of being more useful in hysterical disorders, and of promoting and correcting various secretions and uterine evacuations. Externally Galbanum has been applied to expedite the suppuration of inflammatory and indolent tumours, and medically as a warm stimulating plaster. It is an ingredient in the pilulæ e gummi, the emplastrum lithargyri cum gummi, of the London Pharm. and in the empl. ad clavos pedum of the Edin.

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TUSSILAGO FARFARA. COLTSFOOT.

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*SYNONYMA.* PETASITES SCAPO UNIFLORO, FLORE RADIATO, *Hal. Stirp. Helv.* n. 143. BECHIUM, *Dodon. Pempt.* 586. TUSSILAGO VULGARIS. *Baub. Pin.* 197. *Zannich. Venez.* t. 266. TUSSILAGO. *Clus. Hist.* 140. *Camer. Epit.* 590. *Gerard*, 811. *Parkinson*, 1220. *Raii Hist. Plant*, 259. TUSSILAGO FARFARA. *Curtis Flor. Lond.* *Relhan. Flor. Cantab.* *Withering. Botan. Arrang.* p. 904. *Πυχιον* \* *Dioscorid. Hippoc. &c.*

*Class* Syngenesia. *Ord.* Polygamia Superflua. *L. Gen. Pl.* 952.

*Eff. Gen. Ch.* *Recept.* nudum. *Pappus* simplex. *Cal.* squamæ æquales, discum æquantes, submembranaceæ.

*Sp. Char.* T. scapo unifloro imbricato, fol. subcordatis angulatis denticulatis.

THE root is long, round, tapering, creeping, and sends off many small short fibres; the stalks are furrowed, downy, simple, six or eight

\* Supposed to be derived from *βηξ*, tussis, hence Tussilago.

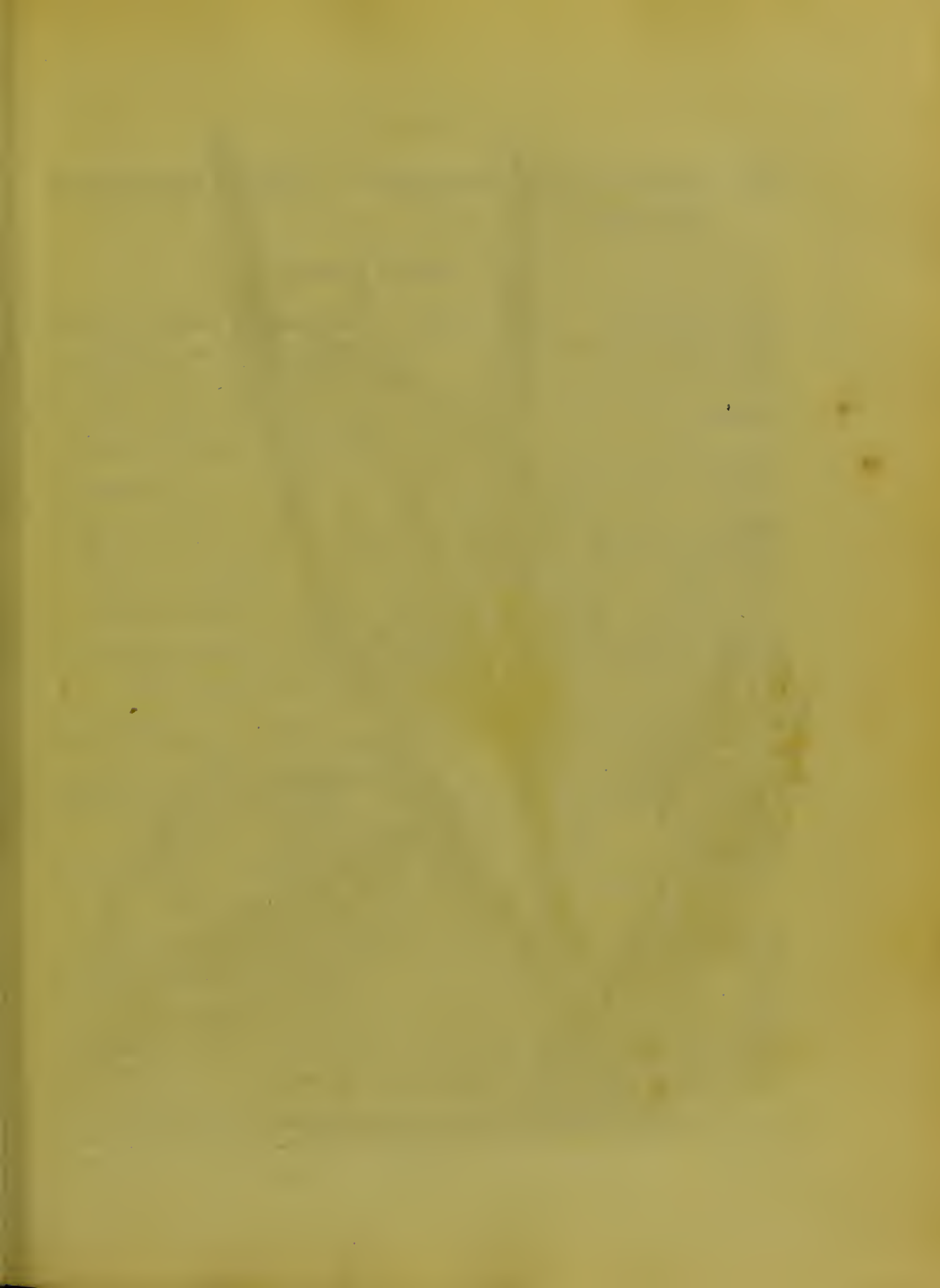


inches high, beset with several scaly leaves, of a brownish pink colour, and closely embracing the stem; the leaves are obtusely heart-shaped, angular, irregularly indented, above of a bright green colour, beneath white, downy, and stand upon long roundish radical footstalks; the flowers are compound, large, and yellow; *the florets in the disc* are hermaphrodite, tubular, the limb is cut into five acute segments, which curl outwardly; the antheræ, by uniting, form a tube, but their apices are separate and pointed; the germen is short, the style filiform, longer than the antheræ, and the stigma is round: *the florets at the circumference* are female, tubular at the base, and the limb is long and linear; the germen is oblong; the stigma bifid; the seed is oblong, and of a pale-brown colour, crowned with simple down; the calyx is cylindrical, and the leaflets or squamæ are oblong, pointed, and alternately narrower. It is common in moist clayey places, and the flowers appear sometime before the leaves, in March or April.

The sensible qualities of Tussilago are very inconsiderable; it has a rough mucilaginous taste, but no remarkable smell. The leaves have always been of great fame, as possessing demulcent and pectoral virtues; of course, it is esteemed useful in pulmonary consumptions, coughs, asthmas, and in various catarrhal symptoms.<sup>a</sup> Fuller, in his *Medicina Gymnastica*,<sup>b</sup> recommends Coltsfoot as a valuable medicine in scrophula; and Dr. Cullen, who does not allow it any powers as a demulcent and expectorant, found it serviceable in some strumous affections.<sup>c</sup> It may be used as tea, or given in the way of infusion, to which liquorice-root or honey, may be a useful addition.

<sup>a</sup> We might, without exception, cite every writer upon the *Materia Medica*. Percival found it also useful in hectic diarrhœas. *Essays Med. & Exper.* vol. 2. p. 224. Cartheuser advises it to be given with the roots of Dandelion. *Mat. Med.* 416. The juice, liberally drunk, has been beneficial in calculous complaints. *Comm. Lit. Nor.* 1736, p. 194. <sup>b</sup> p. 84.

<sup>c</sup> Every part of the plant has been medicinally employed for the same purpose, but more usually the leaves, and these are the principal ingredient in the British herb tobacco. It is remarkable, that the smoking of this plant has the recommendation of Dioscorides, Galen, Pliny, Boyle, &c. *Et adhuc hodie plebs in suecia instar tabaci contra tussim fugit.* *Lin. Flor. Suec.* p. 289, and under the direction of Pliny it is certainly an efficacious remedy—in singulos haustus, passum gustandum est. *lib. 26. c. 6. p. 651.*





*Plantago major*

Published by W. Woodville March 1. 1790.



PLANTAGO MAJOR. COMMON GREAT PLANTANE,  
Or, WAY-BREAD.

*SYNONYMA.* PLANTAGO. *Pharm. Edin.* PLANTAGO foliis petiolatis, ovatis, glabris; spica cylindrica. *Hal. Stirp. Helv.* n. 660. PLANTAGO latifolia sinuata, *Baub. Pin.* 189. PLANTAGO simpliciter dicta. *Raii Hist. Plant.* 876. PLANTAGO latifolia vulgaris. *Parkinson*, 493. PLANTAGO VULGARIS. *Gerard.* 419. PLANTAGO MAJOR. *Curtis, Flor. Lond. Relban. Flor. Cantab.* p. 61. *Withering, Bot. Arrang.* 142. ἀρνογλωσσόν *Dioscorid.* \* (lingua agnina) Cl. Aiton pro varietatibus habet  
α Plantago latifolia vulgaris. *Park. Theat.* 493.  
β Plantago major, panicula sparsa. *Baub. Hist.* 3. p. 503.  
γ Plantago latifolia rosea, floribus quasi in spica dispositis. *Baub. Pin.* 189. vide *Hort. Kew.*

*Class.* Tetrandria. *Ord.* Monogynia. *L. Gen. Plant* 142.

*Eff. Gen. Ch.* *Cal.* 4-fidus. *Cor.* 4-fida: limbo reflexo. *Stamina* longissima. *Caps.* 2-locularis, circumscissa.

*Sp. Ch.* P. foliis ovatis glabris, scapo tereti, spica flosculis imbricatis.

THE root is perennial, short, thick, and puts forth several long whitish fibres, which strike down in a perpendicular direction: the leaves are oval, procumbent, irregularly subdentated, of a pale green colour, ribbed; ribs, commonly seven, often five, and sometimes nine: the footstalks are long, concave above, and proceed from the root; the flower-stems are generally three or four, about a span high, downy,

\* (Plantago Media) It has also been named from the number of ribs, or nerves of the leaf, as πολυνerviς, ἑπταπλῆρης, &c.

round, smooth below the spike, and somewhat incurvated; the calyx is of four leaves, somewhat erect, oval, obtuse, smooth, and persistent; the flowers are small, produced on a long cylindrical imbricated spike, which occupies more than half the stem; each flower consists of a roundish tube, narrow at the mouth, and the four segments are heart shaped, pale, withered, and bent downwards; the bractea is oval, fleshy, and larger than the calyx; the stamina are whitish, longer than the corolla, and the antheræ are purple: the germen is oval, the style short and filiform, and the stigma simple; the capsule divides horizontally in the middle; and, according to Mr. Curtis, contains about twenty unequal brown seeds. It grows commonly in pastures and way-sides, and flowers in June.

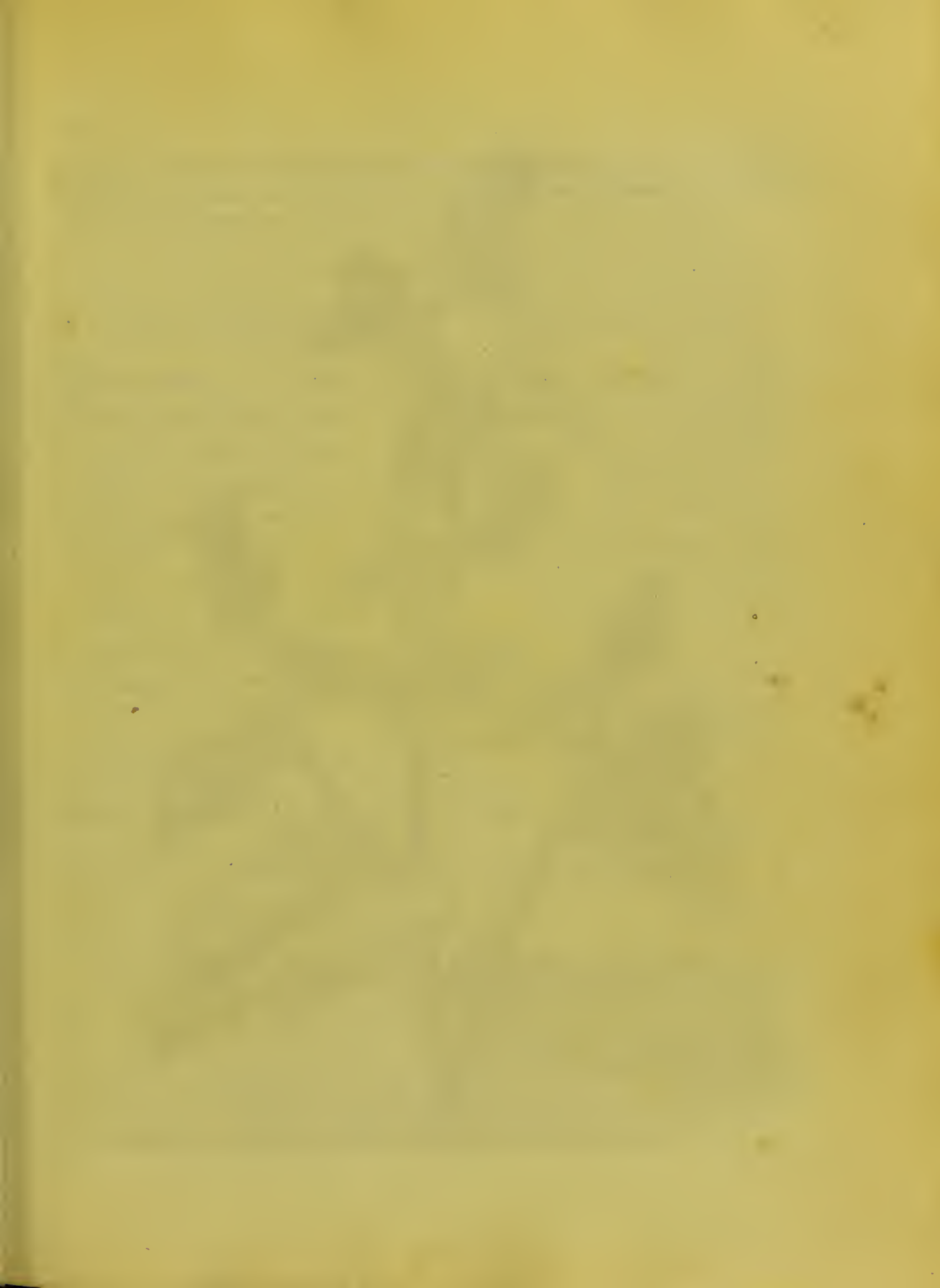
The name *Plantago*, is omitted in the London Pharmacopœia, but it is still retained in the *Materia Medica* of the Edinburgh college, in which the leaves are mentioned as the pharmaceutical part of the plant: these have a weak herbaceous smell, and an austere bitterish subsaline taste; and their qualities are said to be refrigerant, attenuating, substyptic, and diuretic.

*Plantago* was formerly reckoned amongst the most efficacious of vulnerary herbs; and by the peasants the leaves are now commonly applied to fresh wounds, and cutaneous sores. Inwardly, they have been used in phthical<sup>a</sup> complaints,<sup>b</sup> spitting of blood, and in various fluxes, both<sup>c</sup> alvine and hæmorrhagic. The seeds, however, seem to us better adapted to relieve pulmonary diseases than the leaves, as they are extremely mucilaginous. The roots have also been recommended for the cure of tertian intermittents; and from the experience of Bergius, not undeservedly: “*Plurimæ sunt narrationes de utilitate radicis plantaginis in Tertianis. Periculum ipse feci, dosi largiori, scil. a drachmis 3 ad 6, quovis die, sub apyrexia; sed contra febres autumnales nihil valuit Plantago; in vernalibus autem febribus subinde opem tulit.*”<sup>d</sup> An ounce or two of the expressed juice, or

<sup>a</sup> Celsus, lib. 3. c. 22. Schulz, *Mat. Med.* p. 412. Pliny, lib. 26. c. 2. Petzoldt. *Eph. Nat. Cur.* cent. 7. Obs. 10. p. 25. <sup>b</sup> Boyle de util. *Phil. Nat.* p. 2. p. 150.

<sup>c</sup> Rosenst. *Baskd.* p. 81. <sup>d</sup> *Mat. Med.* p. 70.

“*Plantane has been alledged to be a cure for the bite of the rattle-snake: but for this there is probably but little foundation, although it is one of the principal ingredients in the remedy of the Negro Cæsar, for the discovery of which he received a considerable reward from the Assembly of South Carolina.*” Duncan’s *New Edinb. Dispens.*







*Arctium Lappa.*  
Published by D<sup>r</sup> Woodville March 1. 1790.

the like quantity of a strong infusion of Plantane, may be given for a dose; in agues the dose should be double this quantity, and taken at the commencement of the fit.

## ARCTIUM LAPPA.

## BURDOCK.

*SYNONYMA.* BARDANA. *Pharm. Lond. & Edin.* LAPPA. *Hal. Stirp. Helv.* n. 161. LAPPA SEU PERSONATA. *Raii Hist.* p. 332. LAPPA MAJOR, ARCTIUM DIOSCORIDIS. *Baub. Pin.* 198. PERSONATA. *Camerar Epit.* 887. BARDANA SIVE LAPPA MAJOR. *Dodon.* 38. *J. Baub.* vol. 3. 570. BARDANA MAJOR. *Gerard*, 809. BARDANA VULGARIS MAJOR, *Park.* 1222. ARCTIUM LAPPA. *Curt. Flor. Lond. Relhan Cant.* 302. *Withering. B. A.* 163. *Ἀρκέσιον, Ἀρκέσιον Græcor.* VARIETATES sic se habent, *Hort. Kew.* vol. 3. p. 136.

α Lappa major capitulo glabro maximo. *Raii Syn.* 196.

SMOOTH-HEADED COMMON BURDOCK.

β Lappa major montana, capitulis tomentosis. *Baub. Pin.* 198.

WOOLY-HEADED BURDOCK.

*Class* Syngenesia. *Ord.* Polygamia Æqualis. *L. Gen. Pl.* 923.

*Eff. Gen. Ch.* *Cal.* globosus: squamis apice hamis inflexis.

*Sp. Ch.* A. foliis cordatis inermibus petiolatis.

THE root is biennial, subcylindrical, long, simple, externally of a dark brown colour, internally white, and sends off many slender fibres: the stalk is erect, roundish, grooved, villous, purplish, above an inch in diameter, three feet high, and alternately branched: the leaves are alternate, patent, heart-shaped, veiny, above of a dark green colour, underneath whitish; the lower leaves are very large, and stand upon long footstalks, which are grooved like the stem: the calyx



calyx is common to all the florets, imbricated, globular, the exterior scales are entangled in fine woolly threads, firm, elastic, and their extremities are polished and hooked; the flowers are numerous, disposed in heads, and stand alternately upon footstalks on the branches; the corolla is compound, the florets purple, tubular, each having the limb divided into five pointed segments; the stamina are five, white, and filiform; the antheræ unite into a tube, are of a bluish colour, and project beyond the corolla; the germen is somewhat triangular, the styles white, and longer than the stamina, and the stigma bifid; the seeds are oblong, brown, and have irregular rough surfaces.

This plant is common in waste grounds and road sides; it flowers in July and August, and is well known by the burs, or scaly heads, which stick to the clothes, a circumstance from whence the word *Lappa* is supposed to be derived.† The Pharmacopœias direct the root for medical use: it has no smell, but tastes sweetish, and mixed as it were with a slight bitterishness and roughness. Its virtue, according to Bergius, is mundificans, diuretica, diaphoretica;<sup>a</sup> and many instances are upon record in which it has been successfully employed in a great variety of chronic diseases, as scurvy, rheumatism, gout, lues venerea, and pulmonic complaints. We have never had an opportunity of observing the effects of this root, except as a diuretic, and in this way we have known it succeed in two dropsical cases, where other powerful medicines had been ineffectually used: and as it neither excites nausea nor increases irritation, it may occasionally deserve a trial where more active remedies are improper. The seeds also possess a diuretic quality, and have been given with advantage in the dose of a dram in calculous and nephritic complaints, and in the form of emulsion as a pectoral. The root is generally used in decoction, which may be made by boiling two ounces of the fresh root in three pints of water to two, which, when intended as a diuretic, should be taken in the course of two days, or if possible in twenty-four hours.

† *Lappa dici potest vel απο της λαβειν prehendere vel λαπτειν lambere.* Ray, l. c.

<sup>a</sup> *Mat Med.* 653. <sup>b</sup> *Henricus III. Galliarum Rex, a Petro Penà decocto radicem Lappæ ab hac lue sanatus fuit. Vide Reverius, Obs.* 41.

The young stems of this plant, stripped of their rind, are boiled and eat like asparagus. When raw, they are good with oil and vinegar. *Withering*, 864. l. c.







*Guaiacum officinale.*

Published by D. Woodville April. 1 1790.

## GUAIAECUM OFFICINALE.      OFFICINAL GUAIAECUM.

*SYNONYMA.* GUAIAECUM. *Pharm. Lond. & Edin. Miller's Dict.* Guaiacum, foliis fere impetiolatis, bijugatis, obovatis & leniter radiatis; pinnis & ramulis dichotomis. *Browne's Jamaica*, 225. Lignum Vitæ, or Guaiacum. *Hughes's Barbadoes*, 142. Guaiacum Americanum primum, fructu aceris, five legitimum. *Breyn. Prodr.* i. 31. Pruno vel Euonymo affinis arbor, folio alato, buxæo, subrotundo, flore pentapetalo cæruleo racemoso, fructu aceris cordato, cujus cortex luteus corrugatus, semen unicum majusculum nigricans nullo officulo tectum operit. *Sloane's Jam.* vol. 2, 133. & *Cat. P. Jam.* 186. Guaiacum flore cæruleo, fructu subrotundo. *Plum. Nov. Gen.* 39. Guaiacum, magna matrice. *Baub. Pin.* 448. Lignum sanctum, Lignum Indicum, et Palus sanctus, *Quorundam*.

*Class* Decandria. *Order* Monogynia. *L. Gen. Plant.* 518.

*Ess. Gen. Ch.* *Cal.* 5-fidus inæqualis. *Petala* 5, calyci inserta. *Caps.* angulata 3 s 5-locularis.

*Sp. Ch.* *G.* foliolis bijugis obtusis.

THE Guaiacum tree grows to the height of forty feet, and to the circumference of four or five, sending forth several large dividing and subdividing knotted branches: the bark of the trunk is of a dark grey colour, variegated with greenish or purplish specks, but of the branches it is uniformly ash-coloured, striated, and marked with fissures; "the roots are very thick in proportion to the size of the tree, and run a great way into the ground, in a perpendicular direction:" the leaves are pinnated, consisting of two, three, and sometimes four pair of pinnæ, with very short footstalks, smooth, shining, veined,



of an inversely oval shape, and dark green colour: the flowers grow in clusters, or umbels, upon long peduncles, which spring from the divisions of the smaller branches: the calyx is of five leaves; these are concave, oblong, obtuse, patent, unequal, and deciduous; the petals are five, elliptical, concave, spreading, and of a rich blue colour; the stamina are erect, villous, taper from the base, and are crowned with yellowish hooked antheræ; the germen is oval, angular, and in its capsular state assumes the figure we have separately described; the style is short and tapering; the stigma is simple, and pointed; the seeds are solitary, hard, and of an oblong shape.

Linnæus makes three species of the *Guaiacum*, viz. the *officinale*, *sanctum*, and *afrum*; the specific difference between the two former he fixes wholly on the number of the pinnæ of the leaves, defining the first foliolis bijugis, and the second foliolis multijugis; but the leaves, according to the plant we have figured, commonly consist of three, and sometimes four pair of pinnæ,<sup>a</sup> so that this specific description is by no means distinctly characteristic. In a medical sense, the *sanctum* has been generally considered synonymously with the *officinale*, and from the investigation we have given this subject, we believe it founded in botanical truth.<sup>b</sup>

This tree is a native of the West India islands, and the warmer parts of America, and appears from the MS. of Sir Hans Sloane, in the British Museum, to have been first cultivated in this country by the Dukes of Beaufort in 1699.<sup>c</sup> The wood, gum, bark, fruit, and even the flowers of this tree, have been found to possess medicinal qualities.<sup>d</sup> The wood is brought here principally from Jamaica in large pieces of four or five cwt. each, and, from its hardness and beauty, is in great demand for various articles of turnery ware.—

<sup>a</sup> There can be no doubt of our plant being the true *officinale*, we had it with several others from Mr. Aiton, whose extensive botanical knowledge is above our praise, and only to be equalled by that liberality of mind with which he communicates it. The testimony of Sir Hans Sloane is in opposition to Linnæus, for he observes that the leaves have sometimes four pair of pinnæ.

<sup>b</sup> Monardus divides the wood into three sorts, and C. Bauhin adopts two of these by the distinctions of *Guaiacum magna matrice*, and the *Guaiacum propemodum sine matrice*: these circumstances, however, depend upon the age, size, &c. of the tree. The icons of these species, given by Blackwell and Regnault, cannot, we presume, be considered as decisive.

<sup>c</sup> Vide Aiton's Hort. Kew. <sup>d</sup> Long's History of Jamaica, vol. 3. p. 725.

It is extremely compact, and so heavy as to sink in water: the outer part is of a pale yellowish colour, the heart of a dark blackish brown, with a greater or less admixture of green. It scarcely discovers any smell, unless heated, or while rasping, in which circumstances it yields a light aromatic one: chewed, it impresses a slight acrimony, biting the palate and fauces. Its pungency resides in a resinous matter, which is totally extracted by digestion in rectified spirit, and partially by boiling water. The quantity of solid extract, obtained by rectified spirit, amounts to about one-fourth of the weight of the wood; with water, scarcely one-sixth is obtained.<sup>c</sup> The *gum*, or rather gummy resin, is obtained by wounding the bark in different parts of the body of the tree, or by what has been called jagging. It exudes copiously from the wounds, though gradually; and when a quantity is found accumulated upon the several wounded trees, hardened by exposure to the sun, it is gathered and packed in small kegs for exportation. This resin is of a friable texture, of a deep greenish colour, and sometimes of a reddish hue; it has a pungent acrid taste, but little or no smell, unless heated. It contains more resin than the watery extract made from the wood; and more gummy matter than the spirituous extract.<sup>f</sup>—The Guaiacum tree also yields a spontaneous exudation from the bark, which is called the native gum, and is brought to us in small irregular pieces, || of a bright semipellucid appearance, and differs from the former in being much purer.<sup>g</sup> The *Bark* contains less resinous matter than the wood, and is consequently a less powerful medicine, though in a recent state it is strongly cathartic. The *Fruit*, (says a late author) “is purgative; and, for medicinal use, far excels the bark. A decoction of it has been known to cure the venereal disease, and even the yaws in its advanced stage,

<sup>c</sup> Lewis's M. M. 330. <sup>f</sup> Des Marchais, Voyage en Guinée & Cayenne, tom. 3. p. 246. “The Gum, or rather the resin of this plant, transudes frequently of its own accord, and may be seen concentered on many parts of it at all seasons of the year; but it is generally found in greater abundance where the bark has been cut or wounded.” Browne's Jam. 226.

|| It is sometimes sophisticated by the negroes with the gum of the Manchineal tree, (a species of the Hippomane) but this is easily detected by dissolving a little in spirit of wine or rum. The true gum imparts a whitish or milky tinge; but the Manchineal gives a greenish cast. Long, l. c. 724. Möuch advises a few drops of Spirit. nitri dulc. to be added to the spirituous solution, and then to be diluted with water, by which the gum is precipitated in a blue powder; but the adulteration will appear floating in white stræ, &c. Vide Crell's Chem. Journ. P. 2. p. 78. <sup>g</sup> Long, l. c.



without the use of mercury." The *Flowers*, or blossoms, are laxative, and in Jamaica are commonly given to children in the form of syrup, which in appearance much resembles that of violets. It is only the wood and resin of Guaiacum which are now in general medical use in Europe; and as the efficacy of the former is supposed to be derived merely from the quantity of resinous matter which it contains, they may be considered indiscriminately as the same medicine. Guaiacum was first introduced in the *Materia Medica* soon after the discovery of America,<sup>h</sup> and previous to the proper use of mercury in the lues venerea, it was the principal remedy employed for the cure of that disease, and its great success brought it into such repute, that it is said to have been sold for seven gold crowns a pound;<sup>i</sup> but notwithstanding the very numerous testimonies in its favour ‡, it often failed in curing the patient, and was at length entirely superseded by mercury; and though it be still occasionally employed in syphilis, yet it is rather with a view to correct other vicia in the habit, than for its effects as an antivenereal.\*

The general virtues of Guaiacum are stated by Bergius to be mundificans, fudorifera, diuretica, subcalesfaciens, stomachica, and its use to be in syphilis, arthritis,† morbi cutis, odontalgia;<sup>k</sup> and to these we may add chronic rheumatism, scrophula, and some scirrhus diseases. — To Dr. Cullen Guaiacum seems analogous to the nature of the balsams and turpentine, he therefore supposes it like

<sup>h</sup> Initium celebritatis dedit felix curatio, quam in insula St. Dominici Hispanus quidam superioris ordinis, qui morbum ab India muliere contraxerat, jam doloribus diris detentus, suadente famulo suo Indo, ex hoc ligno in semet experiebatur. Ejus exemplo præeunte, plures alii Hispani eodem modo contaminati ad idem auxilium fausto successu confugerunt. Quod quum post reditum Hispali ab hisce evulgaretur, hinc per totam Hispaniam, & inde per totum reliquum orbem, quem lues occupaverat, fama remedii increbuit. Monardes Simpl. Med. p. 341. Vide Murray's Ap. Med. vol. 3. 409. And according to Delgado, Guaiacum was used in Spain so early as 1508. (del modo de adoperare el Legno santo. Venet. 1529).

<sup>i</sup> Vide Friend's Hist. vol. 2. p. 365. And Massa de Morb. gal. 71. says, Ligni libra una scutatis aureis undecim veniret. ‡ Vide Böhm Diss. variæ syphilidis therapiae.

\* Perhaps the opinions and facts adduced by Boerhaave, Astruc, Plenck, De Haen, Hutten, and lately by Mr. Hunter, may be considered in some measure as exceptions. — The last of these authors remarks, that the Guaiacum was first used in Europe as a remedy for the Syphilis in 1517; but from the authority we have cited above, it appears to have been employed nine years sooner.

† Though upon the authority of Mead, Pringle, and others, Guaiacum has been much employed in rheumatisms, yet it was of little estimation in the gout till Mr. Emerigon of Martinico, published his letters about thirteen years ago, (Spécifique contre la goutte, &c.)

<sup>k</sup> Mat. Med. 346.

these



these to be very diffusible in the system, and thereby to have a considerable power in stimulating the extreme vessels every where; and in this way he accounts for its power in chronic rheumatism, and from its passing off by the pores of the skin, he considers it a probable remedy in some cutaneous disorders.<sup>1</sup>

This opinion corresponds with Murray's, who says, — Et hisce partibus resinosis quidem Guaiacum per minimos corporis nostri canales efficaciter penetrat, impacta resolvit & discutit, balsamicam virtutem exercet et sudorem potenter pellit, item evacuationes per alvum vel lotium, vel aliquando salivæ profluvium, ciet.<sup>m</sup> According to Lewis, where the excretory glands are obstructed, the vessels lax and flaccid, and the habit replete with serous humours, it has good effects: but in thin emaciated habits, and an acrimonious state of the fluids, it often does harm.<sup>n</sup>—We have frequently conjoined it with mercury and soap, and in some cases with bark or steel, and found it eminently useful as an alterative. In the pharmacopœias it is directed in the form of tincture and elixir; the latter is ordered by the Edinburgh college to be prepared in two ways, viz. with rectified spirit, and the vinous spirit of sal ammoniac.<sup>o</sup> Of these compounds the dose may be from two scruples to two drams: the powder is generally given from 6 grains to 20, or even more, for a dose, either by itself, or in a fluid form, by means of mucilage or the yolk of egg. The Decoctum lignorum, (Pharm. Ed.) of which Guaiacum is the chief ingredient, is commonly taken in the quantity of a pint a day.

<sup>1</sup> Mat. Med. vol. 2. 197.    <sup>m</sup> Murray's Ap. Med. vol. 3. 408.    <sup>n</sup> l. c. 331.

• Dr. Cullen observes, that "several physicians have apprehended mischief from the use of the Guaiacum in a spirituous tincture, and I am certain that it sometimes happens. It is therefore that in imitation of the very respectable Berger of Copenhagen I avoid the spirituous tincture of Guaiacum, and employ almost only the diffusion of it in water. In preparing this, having first with an equal part of hard sugar reduced the Guaiacum to a fine powder, I apply some portion of the yolk of egg, or of a mucilage of gum arabic, and rubbing these together very carefully, I form an emulsion with water, or watery liquors, as may be thought proper. This preparation I give over night in such a quantity as may open the belly once next day, which will happen to different persons from doses containing 15 to 30 grains of the Guaiacum." M. M. 199. Berger's formula is the following: R $\bar{x}$  G. guaiaci  $\bar{z}$ ss G. arabici  $\bar{z}$ ij. Bene trita solv. in aquæ hyssopi vel alius distill  $\bar{z}$ ix. Add. sacchari  $\bar{z}$ ss m. d. s. solutio, cujus duo cochlearia majora mane & vesperi capiantur, superbibito libra una decocti hordei vel avenæ. Vet. Acad. Handl. vol. 1. p. 74. Theden recommends the Guaiacum made into pills with soap of almonds, which is still more convenient (*neue Bemerk. u. Erfahr. a. d. Wundarzneyk. und Arz.* P. 2. 204.)

## HÆMATOXYLUM CAMPECHIANUM.

## LOGWOOD.

*SYNONYMA.* LIGNUM CAMPECHENSE. *Pharm. Lond. & Edin.*

Hæmatoxylum spinosum, foliis pinnatis, racemis terminalibus. *Browne's Jam.* 221. Lignum Campechianum, species quædam Brasil. Vide *Sloane's Jam.* vol. 2. p. 183. Crista pavonis Coronillæ folio secunda, sive tinctoria Indica, flore luteo racemoso minore, filiqua latissima glabra, lignum rubrum, *Sappan* dictum ferens. *Breyn. Prodr.* 2. 37. Erythroxyllum, sive lignum rubrum Indicum spinosissimum, coluteæ foliis, floribus luteis, filiquis maximis. *Herm. Par. Bat.* 333. Hæmatoxylum. *Long's Jam.* vol. 3. p. 754. *Miller's Dict.* *Jacquin, Ob. Bot.* 1. p. 20.

*Class* Decandria. *Order* Monogynia. *L. Gen. Plant.* 525.

*Eff. Gen. Ch.* *Cal.* 5 partitus. *Petala* 5. *Caps.* lanceolata, 1-locularis, 2-valvis: valvis navicularibus.

THE Campechianum is the only species of the Hæmatoxylum hitherto discovered; it is a much smaller tree than the Guaiacum, and both the trunk and the branches are extremely crooked, and covered with dark-coloured rough bark; the smaller ramifications are numerous, close, prickly, or beset with strong sharp spines; the leaves are pinnated, generally composed of four or five pair of pinnæ, of an irregular oval shape, obliquely nerved, and obtusely sinuated at the top; the flowers grow in racemi, or in close regular terminal spikes, and appear in March; the calyx divides into five oblong obtuse segments, of a brownish purple colour; the petals are five, patent, obtusely lance-shaped, and of a reddish yellow colour; the stamina are somewhat hairy, tapering, of unequal length, shorter than the corolla, and the antheræ are small and oval; the style is nearly the length of the stamina, and the germen becomes a long double valved





*Hematoxylum* *Campechianum*

Published by D<sup>r</sup> Woodville April 1. 1790.





valved pod, which contains many oblong compressed, or somewhat kidney-shaped, seeds.

This tree is a native of South America, and grows to the highest perfection at Campeachy, in the Bay of Honduras, whence the seeds were brought to Jamaica in 1715, with a view of propagating it as an article of commercial export. And though it does not appear to have answered this purpose so fully as could have been wished, yet we are told that in some parts of the island, especially where the ground is swampy, this tree, in the course of three years, will rise to the height of ten feet, and by this quick and luxuriant growth, soon overrun and destroy the neighbouring plants.<sup>a</sup> The Logwood tree was first cultivated in Britain by Mr. P. Miller in 1739,<sup>b</sup> who says, “there are some of these plants now in England which are upwards of six feet high, and as thriving as those in their native soil;”<sup>c</sup> but this observation will not apply to the present time, for we have searched in vain for this plant through most of the principal garden stoves in the neighbourhood of London.

The wood of this tree is of a solid texture, and of a dark red colour; it is imported into Europe principally as a dying drug, cut intounks or logs of about three feet in length; of these pieces, the largest and thickest are preferred, as being of the deepest colour. This wood has a sweetish subastringent taste, and no remarkable smell; it gives a purplish red tincture both to watery and spirituous infusions, and tinges the stools, and sometimes the urine, of the same colour; but from the experiments of Du Hamel and others, it does not appear to colour the bones of animals, as observed of madder and some other plants of that class. It is used medicinally as an astringent and corroborant. In diarrhœas it has been found peculiarly efficacious, and has the recommendation of some of the first medical authorities:<sup>d</sup> also in the latter stages of dysentery, when the obstructing causes are removed,

<sup>a</sup> In some parts of Jamaica “are such quantities of it growing wild, as to incommode the land-holders extremely.” Long’s l. c. 754. He also observes, that “it makes an excellent and beautiful fence, which, if kept properly trimmed, grows so strong and thick, that nothing can break through.”

<sup>b</sup> Hort. Kew. <sup>c</sup> Dictionary abridged, sixth edition. <sup>d</sup> Baker, Clark, Pringle, Duncan, Zimmerman, Baldinger, and others.

to obviate that extreme laxity of the intestines usually superinduced by the repeated dejections. Extractum ligni campechensis is ordered in the pharmacopœias, and may be given in the dose of one scruple or two, repeated according to the urgency of the symptoms.

HELLEBORUS NIGER.      BLACK HELLEBORE, Or,  
CHRISTMAS ROSE.

*SYNONYMA.* HELLEBORUS NIGER, SEU MELAMPODIUM.<sup>a</sup>  
*Pharm. Lond. & Edin.* Helleborus Niger legitimus. *Clus. Hist.*  
274. Helleborus Niger flore roseo. *Baub. Pin.* 186. Helle-  
borus Niger flore albo; interdum etiam valde rubente. *J. Baub.*  
3. 635. Helleborus Niger verus. *Gerard's Herb.* 975. TRUE  
BLACK HELLEBORE, or Christmas Flower. *Raii. Hist. Plant.* 697.  
An nostra planta sit Ελληβορος μελας et Μελαμποςιον Græcor. et Helleborus,  
Elleborus, Veratrum, Latinorum, nihil certi pronunciari possit.

*Class* Polyandria. *Order* Polygynia. *L. Gen. Plant.* 702.

*Eff. Gen. Ch.* *Cal.* 0. *Petala* 5 f. plura. *Nectaria* bilabiata, tubu-  
lata. *Caps.* polyspermæ, erectiusculæ.

*Sp. Ch. H.* Scapo subbiflore subnudo, foliis pedatis.

THE root is perennial, rough, knotted, and externally of a black colour, internally whitish, sending off many strong round long fibres; the flower stalks are erect, round, tapering, and towards the bottom reddish; the bracteal leaves supply the place of the calyx, and are oval, concave, and generally indented at the top; the petals are five, large, roundish, spreading, at first of a white

<sup>a</sup> A Melampo qui primus purgationem instituit: unde καθαγιστης, id est purgator nominatus fuit, & hocce medicamento Præti filias in furorem actas perfanavit. Geoff.





*Helloborus niger.*

Published by D<sup>r</sup>. Woodville April 1. 1790





colour, succeeded by reddish tints, but finally putting on a greenish appearance; the nectaria are about eight in number, tubulated, somewhat compressed, bilabiated, and of a greenish yellow colour; the filaments are white, the antheræ yellow; the germina vary, commonly from four to eight, and the capsules, or pods, contain many oval shining blackish seeds; the leaves are compound, divided in a peculiar manner, or pedated, and stand upon long radical footstalks; the simple leaf is elliptical, smooth, thick, and serrated towards the top. This plant is a native of Austria and Italy, and was unknown to the gardens in this country till cultivated by Mr. John Gerard in 1596. If the weather be sufficiently mild, it flowers in January, and hence the name of Christmas Flower.

If any arguments were required to evince the necessity of botanical accuracy in discriminating medicinal plants, the *Helleborus Niger* would furnish us with many facts on which such arguments might be deduced. For a great number of instances is recorded of the effects of this plant, by which it since appears that other plants were mistaken for it, and actually employed; of these we may enumerate the *Helleborus viridis*, *Adonis vernalis*, *Trollius europæus*, *Actæa spicata*, *Astrantia major*, and *Aconitum Napellus*;<sup>b</sup> and as the roots of these plants possess very different powers, we cannot be surprised that the medical history of this root is not only confused and contradictory, but calculated to produce very mischievous and even fatal consequences.

The taste of the fresh root is bitterish, and somewhat acrid, and according to Grew, "being chewed, and for some time retained upon the tongue, after a few minutes it seemeth to be benumbed, and affected with a kind of paralytic stupor, or as when it has been burnt with eating or supping any thing too hot."<sup>c</sup> It also emits a nauseous acrid smell, but being long kept, both its sensible qualities and medicinal activity suffer very considerable diminution. Bergius has very properly attended to this circumstance, for in defining its virtues he considers it under three different degrees of dryness:<sup>d</sup> "VIRTUS: *rec. venenata, rubefaciens, vesicans; recenter siccata: emetica, purgans, emmenagoga, antiphthiriaca, sternutatoria; diu conservata:*

<sup>b</sup> Probably art, as well as ignorance, had some share in these substitutions; for the particulars of which see Murray's *Ap. Med.* vol. 3. from p. 44. to p. 50.

<sup>c</sup> On tastes, vide *Anatomy of Plants*, p. 283. <sup>d</sup> *Mat. Med.* p. 496.



vix purgans, alterans, diuretica.” Although many writers consider this root to be a perfectly innocent and safe medicine, yet we find several proofs of its poisonous effects; from which Murray collects the following symptoms: — “Fateor, dispersas hinc inde extare observationes contrarias, querelas moveri de vomitionibus effrænis inde contractis, hypercatharsi, torminibus, anxietate, siti, singultu, animi deliquiis, sudoribus frigidis, faucium strangulatione, convulsionibus, sternutatione, torpore quodam artuum et insueta rigiditate, inflammatione ventriculi et intestinorum, quin morte pedissequa præviis variis dictis malis.”

It seems to have been principally from its purgative quality that the ancients esteemed this root such a powerful remedy in maniacal disorders, with a view to evacuate the *atra bilis*, from which these mental diseases were supposed to be produced; but though evacuations be often found necessary in various cases of alienations of mind, yet as they can be procured with more certainty and safety by other medicines, this catholicon of antiquity is now almost entirely abandoned.<sup>f</sup> At present it is looked upon chiefly as an alterative, and in this light is frequently employed in small doses for attenuating viscid humours, promoting the uterine and urinary discharges, and opening inveterate obstructions of the remoter glands:<sup>g</sup> it often proves a very powerful emmenagogue in plethoric habits, where steel is ineffectual, or improper.<sup>h</sup> It is also recom-

<sup>e</sup> Vide, Doering De Medicina et Medicis, p. 242. Act. Helv. vol. 5. p. 326. Buchner Diff. de salut. et noxiâ Ellebori Nigri usu. p. 22. Hildanus Obs. Med. chir. cent. 4. obs. 12. Scopoli Fl. carn. ed. 1. p. 557. Morgagni de sed. & caus. morb. Epist. 59. art. 15. et Act. Helv. l. c. Hartman Vet. Acad. Handl. a 1762. p. 276. Schulz Mat. Med. p. 152.

<sup>f</sup> Whether our Hellebore be the same species as that said to grow in the island of Anticyra, and about Mount Olympus, so frequently alluded to by the latin poets, is no easy matter to determine. From the accounts of Tournefort and Bellonius, who botanized these places, a species of this plant was found in great plenty, which the former supposes to be the Hellebore of Hippocrates; it differs from the species here figured, by having a large branched stem, and also by its effects, for he found that a scruple of the extract brought on violent spasms and convulsions. Many plants however are known to vary as much by a removal from their native soil and climate.

<sup>g</sup> Duncan's Ed. new. Dispensatory. Lewis's Mat. Med.

<sup>h</sup> Mead, (mon. et præc. med. p. 138) speaks of it as the most potent of all emmenagogues; but Home (clin. exper. & hist. p. 386) and Pasta (Dissertaz. mediche sopra i mestruî delle Donne, p. 192) found it often unsuccessful.





*Helleborus foetidus*

Published by Dr. Woodville April 1790.



mended in dropfies,<sup>i</sup> and fome cutaneous difeafes.<sup>k</sup> The watery extract of this root, made after the manner directed in the pharmacopœias, is one of the beft and fafeft preparations of it,<sup>l</sup> when designed for a cathartic, as it contains both the purgative and diuretic parts of the Hellebore; it may be given in a dofe from ten grains to a fcruple, or more. A tincture of this drug is alfo ordered in the pharmacopœias, which is preferred for the purpofes of an alterative and deobftruent; of which a tea-fpoonful twice a day may be confidered a common dofe.

<sup>i</sup> By Avicenna, Gefner, Klein, Milman, and Bacher whose famous *tonic pills* are thus prepared: R̄ Ext. Helleb. Nig. Myrrhæ Solutæ aa ʒj pulv. Card. bened. ʒiij M. F. f. a. Maſſa aëre ficco exſiccanda, donec formandis pilulis apta fit, ſingul. ad gran. ſemis: <sup>k</sup> In the lepra Græcorum. Vide Aretæus Oper. ed. Boerh. p. 136. Schmidel Diff. de lepra in Haller's collect. Diſp. præct. T. 6. p. 83. And Hildanus mentions the caſe of a girl who was cured of an obſtinate ſcabies of the face by this extract. l. c. <sup>l</sup> The irritating power of its active matter being conſiderably abated by the boiling. Lewis's M. M.

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HELLEBORUS FOETIDUS. FETID HELLEBORE, Or,  
BEAR'S-FOOT.

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*SYNONYMA.* HELLEBORASTER. *Pharm. Lond.* Helleborus Niger Foetidus. *Baub. Pin.* 185. Helleboraster maximus flore & ſemine prægnans. *Lobel.* p. 679. Helleboraster maximus. *Gerard. Herb.* p. 977. Helleborus maximus ſive Conſiligo. *Park. t.* 212. Helleborus caule ramoſo, multifloro, foliis multipartitis, ferratis, ſtipulis ovato-lanceolatis, coloratis. *Haller's Stirp. Helv.* p. 1193. Elleborus niger ſylveſtris adulterinus etiam hyeme virens. *J. Baub.* 3. p. 880. Veratrum nigrum 3. *Dodon. Pempt.* 382. GREAT BLACK HELLEBORE, or Bear's-Foot. *Setterwort, Raii Synopſis,* p. 271. *Withering's Bot. Arran.* 582. *Relhan's Flor. Cant.* p. 218.

*Class* Polyandria. *Order* Polygynia. *L. Gen. Plant.* 702.

*Eff. Gen. Ch.* Cal. o. *Petala* 5 f. plura. *Nectaria* bilabiata, tubulata. *Caps.* polyspermæ, erectiuſculæ.

*Sp. Ch.* H. caule multifloro folioſo, foliis pedatis.

THE root is ſmall, but beſet with a prodigious number of ſlender  
dark

dark coloured fibres ;<sup>a</sup> the stem rises to the height of a foot and a half, or more, towards the bottom it is round, strong, firm, naked, and marked with alternate cicatrices, the vestiges of the former leaves ; at the top it divides and subdivides into branches, producing many flowers, and is garnished with scaly leaves, or bractæ ; the leaves are numerous, and stand upon long footstalks, surrounding the middle of the stem ; they are divided like the *Helleborus niger* into simple leaves, which are commonly eight or nine, long, narrow, lanceolated, serrated, and of a dark green colour ; the scaly leaves, placed at the ramifications of the flower stem, are smooth, trifid, alternate, and often purplish, but those near the flowers are oval and pointed ; the flowers are numerous, terminal, pendent, of a roundish shape, and stand upon peduncles, forming a sort of umbel ; the petals are five, oval, concave, persistent, of a pale green colour, and their margins are usually tinged with purple ; the stamina are the length of the petals ; the antheræ are white ; the germina three, hairy, and shaped similarly to those of the *Helleborus niger*. This plant grows wild in many parts of England, and flowers about February.

The *Helleborus niger*, though constantly used in medicine since the time of Hippocrates, was the only species of Hellebore<sup>b</sup> known in the *Materia Medica* of our pharmacopœias, till the late introduction of this plant by the London College, probably upon the authority of Dr. Bisset, who recommends the leaves as possessing extraordinary anthelmintic powers. The smell of the recent plant is extremely fetid, and the taste is bitter, and remarkably acrid, inasmuch, that when chewed, it excoriates the mouth and fauces ; it commonly operates as a cathartic, sometimes as an emetic, and in large doses proves highly deleterious.<sup>c</sup> The leaves, the only part noticed by the College, have been long domestically employed in this country for their vermifuge effects, and are thus spoken of by Gerard : —“ The leaves of bastard Hellebor, dried in an oven, after the bread is drawne out, and the powder thereof taken in a figge or raisin, or strawed

<sup>a</sup> Gerard's description we find very just. “ The root consisteth of many small black strings, involved or wrapped one within another very intricately.” Johnson's Gerard, 977. — <sup>b</sup> It must be observed, that the *Heleborus Albus* of the shops, is a *Veratrum*.

<sup>c</sup> Vide Threlkeld's Irish Herbal ; and in the Oxford Magazine for March 1769, p. 99. fatal cases are related by John Cook of Oxford.



upon a piece of bread spread with honey, and eaten, killeth worms in children exceedingly.”<sup>d</sup>—Bisset says, “ The great bastard black Hellebore, or Bear’s-Foot, is by far the most powerful vermifuge for long round worms of any I have yet experienced. The anthelmintic virtue of this plant is well known to the vulgar in the Dutchy of Cleveland, Yorkshire, who generally give it to their children when they suspect them to have worms. The decoction of about a dram of the green leaves, or about fifteen grains of the dried leaves in powder, is the usual dose administered to children betwixt four and seven years of age; a full or sufficient dose generally proves more or less emetic, and often loosens the belly a little. It is usually repeated on two, and sometimes three successive mornings. The second dose has commonly a greater effect than the first, and never fails to expel round worms by stool, if there be any lodged in the alimentary tube.”

“ The juice of the green leaves of the Bear’s-Foot, made into a syrup with coarse sugar, is almost the only vermifuge I have used against round worms for three years past. Before pressing out the juice, I moisten the bruised leaves, which are a little succulent, with some vinegar, which is a corrector of this medicine, and prevents it from inducing great sickness, or much vomiting. Of this syrup I give one tea-spoonful at bed-time, and one or two in the morning, on two or three successive days, to children betwixt two and six years of age; increasing or diminishing the dose a little, according to the strength of the patient.”<sup>e</sup> When this does not open the body, an equal quantity of tincture of rhubarb is directed to be added.

<sup>d</sup> Gerard, l. c. <sup>e</sup> An Essay on the Medical Constitution of Great Britain, p. 235. and p. 339. Dr. B. speaks of this plant as useful also in some asthmatic and hypochondriacal disorders.

We have tried the anthelmintic effects of this plant upon a girl of twenty years of age, (a patient in the Middlesex Dispensary) with considerable advantage:



## OXALIS ACETOSELLA.

## WOOD-SORREL.

*SYNONYMA.* LUJULA. *Pharm. Lond.* OXALIS ACETOSELLA, scapis unifloris, fol. ternatis: foliolis obcordatis pilosis. *Thunb. Diff. de Oxal.* n. 5. *Curtis Flor. Lond.* *Withering's Bot. Arrang.* p. 470. *Relban's Flor. Cant.* p. 176. Oxys scapo unifloro, foliis ternatis, radice squamoso-articulata. *Hal. Stirp. Helv.* n. 928. Oxys sive Trifolium acidum, flore albo & purpurascens. *J. Baub.* II. 387. Trifolium acetosum vulgare. *Baub. Pin.* 330. *Parkinson & Theat.* 746. Oxys Alba. *Gerard. Herb.* 1201. *Raii Synop.* p. 281. WOOD-SORREL. *Hist. Plant.* 1098. ACETOSELLA, et ALLELUJA, *Quorundam.*

*Class* Decandria. *Ord.* Pentagynia. *L. Gen. Plant.* 582.

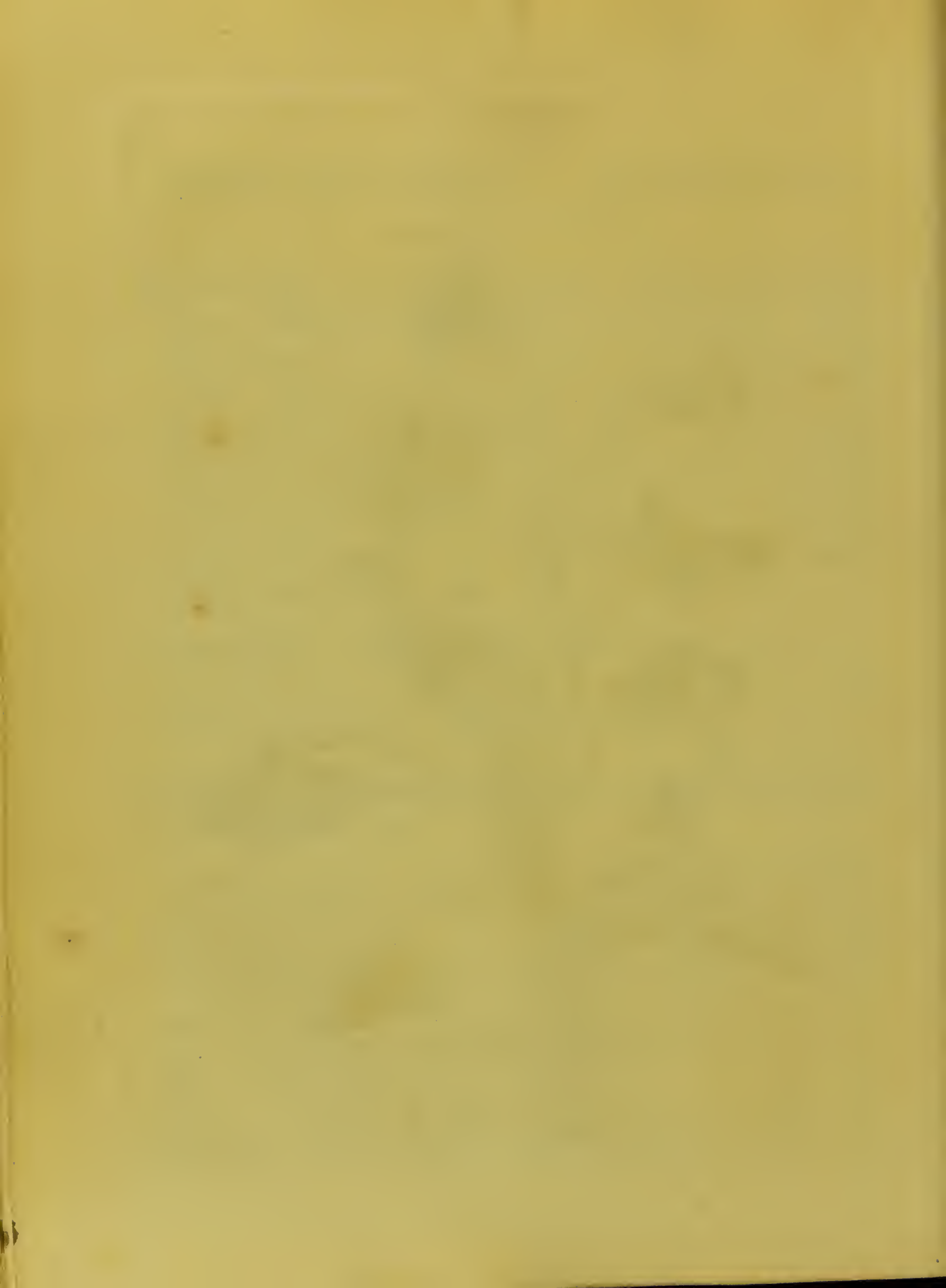
*Eff. Gen. Ch.* Cal. 5-phyllus. *Petala* unguibus connexa. *Caps.* angulis dehiscens, 5-gona.

*Sp. Ch.* O. scapo unifloro, foliis ternatis obcordatis, radice dentata.  
*L. Syst. ed.* 13.

THIS delicate little plant is excellently described by Mr Curtis, (Flor. Lon.) we shall therefore adopt his description, as far as it coincides with our plan. The root is perennial, horizontal, scaly, and of a bright red colour; the leaves grow three together, inversely heart-shaped, of a yellowish green colour, frequently purple underneath, and beset with a few hairs; the leaf stalks are about three inches long, nearly upright, tender, proceeding from little bulbs, which form a kind of sheath, at the bottom these stalks are red and round, but towards the top grooved on one side: the flowers are white or flesh-coloured, and elegantly streaked with red veins. The flower-stalk is somewhat longer than the leaf-stalk, and



*Oxalis* *Acetosella*





and furnished near the top with two oval pointed bractæ, which partly surround it; the calyx is divided into five segments; these are short, permanent, bluntish, membranous at the edges, and often spotted with purple; the petals are five, affixed to the receptacle by the claws, which bend a little inward just above where the claws adhere together, they are blunt, slightly crenated, and tinged at the bottom with yellow; the stamina are ten, upright, white, the five exterior the shortest; the antheræ are yellow and bilocular; the germen is quadrangular and green; the styles are five, very slender, a little longer than the stamina, and the stigma is blunt; the capsule is ovalish, pentagonal, spotted, divided into five cavities, each containing three seeds, which are heart-shaped, longitudinally grooved, convex on both sides, of a bright reddish brown colour, and inclosed within a shining white elastic arillus, by the bursting of which the seeds are thrown out†. This plant is a native of England, it flowers about April and May, and is commonly found in woods, or in shaded situations.<sup>a</sup>

The *Acetofella* is totally inodorous, but has a grateful acid taste,<sup>b</sup> which is more agreeable than the common sorrel, (*Rumex Acetosa*) and approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in a great measure in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. It is recommended by Bergius in inflammatory, bilious, and putrid fevers, and from the cases adduced by Francus,<sup>c</sup> he concludes, "*Acetofellam appetitum restaurare, vomitum consopire, alvum stringere, sitim sedare, oris amaritiam tollere, cordis vires reparare, anginamque abigere.*"<sup>d</sup> The principal use however of the *Acetofella* is to allay inordinate heat, and to quench thirst; for this purpose, a pleasant whey may be formed by boiling the plant in milk, which under certain circumstances may be preferable to the conserve directed by the London

† As a distinguishing part of the generic character, Ray says, "*Quod per maturitatem levi tactu dissiliens cum impetu semina ejaculantur*, (hist. 1098).

<sup>a</sup> Mr. Curtis observes, that this plant continues to produce seeds during the greatest part of the summer, without any appearance of expanded blossoms.

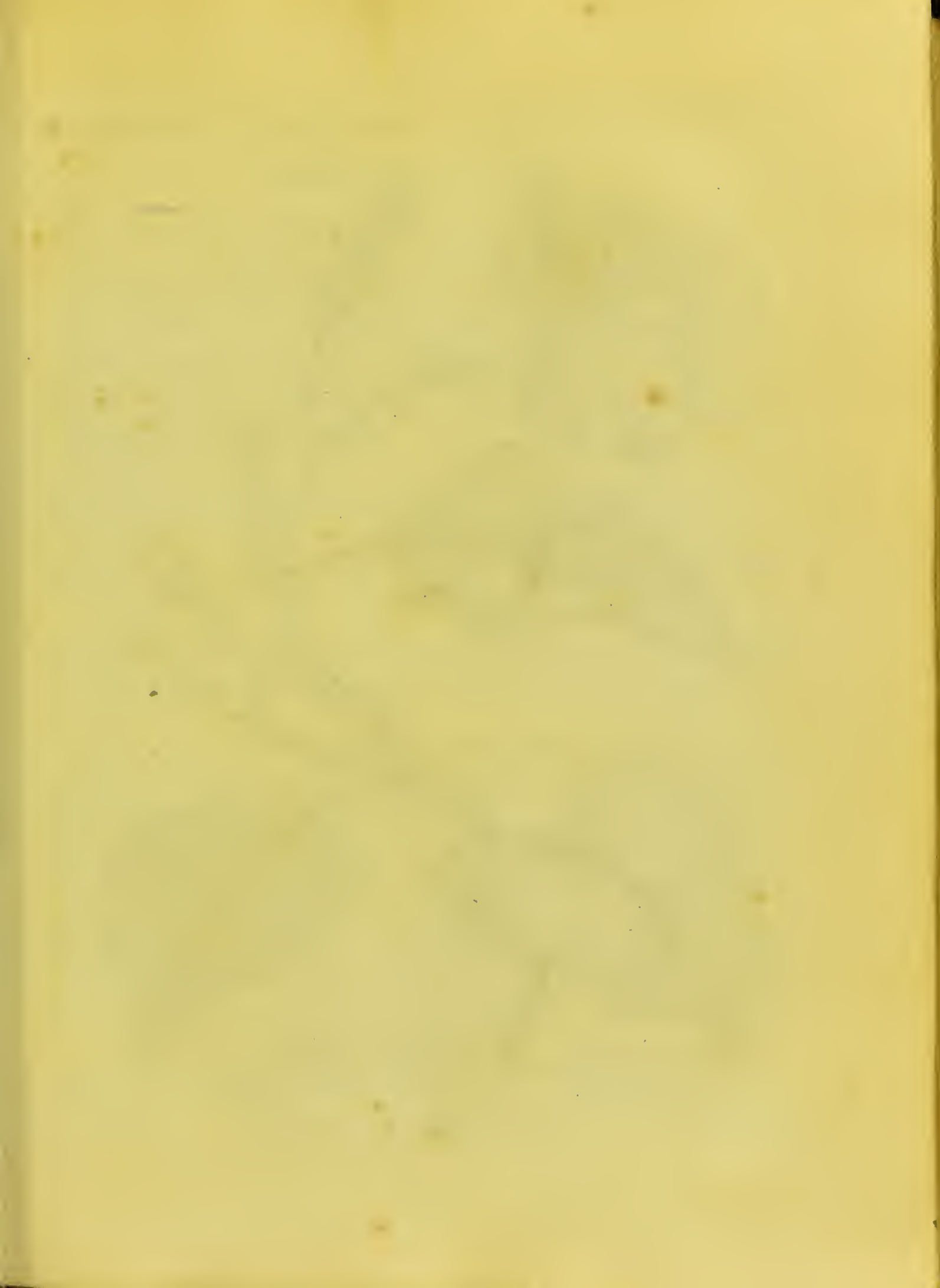
<sup>b</sup> This makes it useful in sallads, in some measure supplying the place of vinegar.

<sup>c</sup> De vera herba Antiquorum *Acetofella*, &c. <sup>d</sup> Mat. Med. p. 379.

College, though an extremely grateful and useful medicine. Many have employed the root of Lujula, probably on account of its beautiful red colour rather than for its superior efficacy. An essential salt is prepared from this plant, known by the name of Essential Salt of Lemons, and commonly used for taking ink-stains out of linen.\*

\* This salt is made from the expressed juice. Vide Boerh. Chem. vol. 2. proc 7. & Savary, Diff. de Sale Essent. Acetofellæ. p. 9. Thunberg found that the *Oxalis cernua* of the Cape of Good Hope, yields the salt in greater quantity than the *Acetofella*. — This salt, when genuine, which is seldom to be procured so,|| is composed of the vegetable alkali and a peculiar acid, which seems more allied to the acid of sugar than that of tartar. Vide Bergman Act. Up. Nov. vol. 2. p. 215. where the manner of separating this acid is also given, and related by Murray. Ap. Med. vol. 3. p. 497.

|| Vide Schæele in Görwells *nya tidningar*, 1775. n. 30. p. 237. & Savary, l. c. What is sold under the name of *Essential Salt of Lemons* in this country, appears sometimes to consist of C. Tart. with the addition of a small quantity of vitriolic acid. MS. Lectures on Chemistry by Dr. Hamilton.







*Convolvulus Jalapa.*

# CONVOLVULUS JALAPA. JALAP BIND-WEED.

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*SYNONYMA.* Jalapium. *Pharm. Lond.* Jalappa. *Pharm. Edin.* Convolvulus Jalapa, fol. difformibus cordatis angulatis oblongis lanceolatis, caule volubili, pedunculis unifloris. *Lin. Syst. Veg. & Mant.* 43. Convolvulus foliis variis, pedunculis unifloris, radice tuberosâ cathartica. *Mill. Dict.* Convolvulus Americanus Jalapium dictus. *Raii Hist.* vol. 1. 724. Mechoacanna nigricans, five Jalapium. *Park.* 180. Bryonia Mechoacanna nigricans. *Bauh. Pin.* 298.

*Class* Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 215.

*Eff. Gen. Ch.* *Cor.* campanulata, plicata. *Stigmata* 2. *Caps.* 2-locularis: loculis dispermis.

*Sp. Ch.* C. caule volubili, foliis ovatis subcordatis obtusis obsolete repandis subtus villosis, pedunculis unifloris. *Hort. Kew.* vol. 1. 211.

THE root is perennial, large, ponderous, abounding with a milky juice, of an irregular oval form, and blackish colour; the stalks are numerous, shrubby, slender, twisted, striated, rising above ten feet high, and twining for support round the neighbouring plants; the leaves are various, generally more or less heart-shaped, but often angular, or oblong and pointed; they are smooth, of a bright green colour, and stand alternately upon long footstalks; the flowers are produced from short branches, sending off two peduncles, each of which supports a single flower; this is large, bell-shaped, entire, plicated, externally of a reddish colour, but of a dark purple within;\* the calyx consists of five oval leaves, these are concave, somewhat

\* The colour will no doubt vary. This plant, at Kew, produced yellowish flowers; but the plants obtained by Houston from the Spanish West Indies answer to the description we have given.



indented at their points, and of a pale green colour; the filaments are five, slender, short, and the antheræ large, and yellow; the style is shorter than the stamina; the stigma is round, and the germen oval. It is a native of South America, and flowers in August and September.<sup>a</sup> The plant we have figured was introduced into the Royal garden at Kew in 1778, by Monf. Thouin, and under the direction of Mr. Aiton it acquired great vigour and luxuriance, extending its stalks fifteen feet in length; and, by means of slips obtained from it, two healthy young plants have since been produced: this circumstance is the more fortunate, as the parent plant lately died. Botanists have differed much respecting the officinal Jalap plant; Linnæus following Clusius, Plumier, Tournefort, and others, first referred it to the *Mirabilis*, but in the second edition of his *Materia Medica* he adopts the opinions of Ray and Miller, in considering it a *Convolvulus*; and indeed after the account of this plant given by Dr. Houston,<sup>b</sup> we are surpris'd that any doubt should still remain upon this subject.<sup>c</sup>

It is said that the root of Jalap was first brought to Europe about the year 1610, and took its name from Xalapa, a province or town in New Spain. In the shops we find this root both cut into slices, and whole, of an oval shape, solid, ponderous, blackish on the outside, but grey within, and marked with several dark veins, by the number of which, and by its hardness, heaviness, and dark colour, the goodness of the root is to be estimated. It has scarcely any smell, and very little taste, but to the tongue and to the throat manifests a slight degree of pungency. The medicinal activity of Jalap resides principally, if not wholly, in the resin, which though given in small doses, occasions violent tormina. The gummy part

<sup>a</sup> Hort. Kew.      <sup>b</sup> See Linnæus's *Observ. in Mat. Med.* 1772. p. 7.

<sup>c</sup> The London College have not referred to the Linnæan name of this plant. — Bergius found that neither the dried root of the *Mirabilis Jalapa*, nor of the *M. longiflora*, given in the dose of half a dram, produced any cathartic effects, but he says that of the *M. dichotoma* satis bene purgat; and as its root also bears some resemblance to the true exotic jalap, he hence infers that it is the same. However, with great deference to the learned professor, we think these reasons insufficient to warrant his conclusion, more especially as they are repugnant to established facts. We may also observe, that all the three species of the *Mirabilis* are in some degree purgative; but even when fostered in the warm climate of Jamaica, so congenial to their native soil, their roots, both in appearance and medicinal power, essentially differ from those of jalap.



bears an inconsiderable proportion to the resinous, and is found to have little or no cathartic power, but as a diuretic it is extremely active.—That Jalap is an efficacious and safe purgative daily experience must evince, but according as the root contains more or less resin, its effects must of course vary. Hoffman thought it particularly improper and unsafe to administer this medicine to children; but Dr. Cullen observes, that if Jalap “ be well triturated before exhibition with a hard powder, and the crystals of tartar are the fittest for the purpose, it will operate in lesser doses than when taken by itself, and at the same time very moderately and without griping. Except when given in very large doses, I have not found it to be heating to the system; and if it be triturated with a hard sugar, it becomes, in moderate doses, a safe medicine for children, which in this form they will readily receive, as the jalap itself has very little taste.”†——Jalap, in large doses, or when joined with calomel, is recommended as an anthelmintic and a hydragogue, and from its general efficacy in dropsies was called *Panacea Hydropicorum*.<sup>d</sup> For the different constitutions and conditions of body in which it is more especially indicated, or its use forbidden, we may cite the opinion of Geoffroy: “*Observandum tamen Jalapam non convenire in febribus acutis, neque calidis & siccis constitutionibus. In his enim, sicut cætera purgantia acria & irritantia, calorem intensum & sæpe inflammatorium in visceribus accendit, parcioremque imo sæpe nullam evacuationem promovet. Sed iis convenit, qui frigida sunt temperiei & fero scatentes, speciatim in hydrope, anasarca, & cachexia.*” M. M. In the *Pharmacopœias*, we have Jalap in the form of tincture and of extract; and the Edinburgh College direct it also in powder, with twice its weight of the crystals of tartar. The dose of the simple powder is commonly from one scruple to two; of the compound powder it may be double this quantity, which is nearly equal to 10 or 15 grains of the extract, or about two drams of the tincture.

† Cullen's *Mat. Med.* vol. 2. p. 540.

<sup>d</sup> Marcgrave M. M.

## CONIUM MACULATUM.

## CONIUM MACULATUM. COMMON HEMLOCK.

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*SYNONYMA.* *Cicuta.* *Pharm. Lond. & Edin. Hal. Stirp. Helv.* 766. *Cicuta major.* *Baub. Pin.* 160. *Cicuta vulgaris major,* *Park.* 933. *Cicutaria vulgaris.* *Clus. Hist.* 2. 200. *Cicuta.* *Gerard,* 1061. *Raii Hist.* vol. 1. 451. *Synop.* p. 215. *Stoerck. Suppl.* *Conium Maculatum.* *Scop. Flor. Carn.* p. 207. *Bergius Mat. Med.* 192. *Curtis Flor. Lond. Withering Bot. Arrang.* 277. *Relhan Flor. Cant.* 112. *Κωνεϊον Græcor.*

*Class* Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 336.

*Eff. Gen. Ch.* *Involucella* dimidiata, subtriphylla. *Fructus* subglobofus, 5-ftriatus, utrinque crenatus.

*Sp. Ch.* *C. feminibus ftriatis.*

THE root is biennial, tapering, sometimes forked, eight or ten inches long, and about the thickness of a finger: the stalk is five or six feet high, round, shining, beset with brown and purplish specks; towards the top branched and striated; near the bottom about three inches in circumference, and covered with a bluish exudation, appearing like a fine powder: the lower leaves are very large, tripinnated, of a shining green colour, standing upon long, striated, concave footstalks, which proceed from the joints of the stem; the upper and smaller leaves are bipinnated, and placed at the divisions of the branches: the flowers are produced in umbels, which are both universal and partial, and composed of several striated radii. The universal involucre ‡ consists of five or seven leaves, these are lanceolated, whitish at the margin, and bent downwards; the partial

‡ The calyx of umbelliferous plants is termed involucre, and may be universal, partial, or proper, according as it is placed at the universal umbel, partial umbel, or flower.

involucre





*Conium maculatum*

Published by Dr Woodville May 1. 1790.





involucrum is composed of three or four leaves, which are placed on the outer side of the radial stalk; the petals are five, oval, white, and curl inwards at their points; the stamina are five, white, about the length of the corolla, and crowned with whitish antheræ; the styles are two, filiform, inclining outwards, and terminated by round stigmata; the fruit is oval, striated, consisting of two irregularly hemispherical striated brownish seeds. This plant flowers in July, and is commonly found near dunghills and waste grounds.<sup>a</sup> It has a peculiar faint fetid smell, and a slight aromatic herbaceous, and somewhat nauseous taste.<sup>b</sup>

The common resemblance of most of the umbelliferous plants leads us to suspect, that they were very imperfectly distinguished by the ancients; for though the botanical description of the *κωνέοιν*, given by Dioscorides, applies in great measure to this plant,<sup>c</sup> yet it must be considered, that his description is without discrimination, and is, with a few exceptions, equally applicable to all the genera of plants composing the natural order of *Umbelliferae*: so that the accounts given of *Cicuta* by ancient writers, should be admitted with great caution.<sup>d</sup> Whether this species of hemlock was the poison usually administered at the Athenian executions, and which deprived Athens of those great characters, Socrates and Phocion, we are at a loss to determine;<sup>e</sup> but that it is a deleterious poison there cannot be a doubt,<sup>f</sup> though some circumstances render it probable that it is less

<sup>a</sup> "The Hemlock is obviously distinguished from our other umbelliferous plants by its *large and spotted stalk*, by the dark and *shining green colour of its bottom leaves*, and particularly by their *disagreeable smell* when bruised, and which, according to Stöerck, resembles that of mice." *Curt. Flor. Lond.* The *Chærophylloides bulbosum* has a spotted stem, but its swelled joints, and rough seeds, distinguish it from the hemlock.

<sup>b</sup> Bergius. M. M. 194. Stöerck says, that the milky juice of the root is so extremely acrid and deleterious that a small drop or two of it being applied to his tongue produced great pain and swelling of that organ, and for some time deprived him of the power of speech.—In answer to this see note (g).

<sup>c</sup> Haller refers it to the *Cicuta virosa*. <sup>d</sup> The word *Cicuta*, with the ancients, seemed not indicative of any particular species of plant, but of poisonous vegetables in general. Vide *Plinii Hist. Nat. L. 14. c. 5. L. 25. c. 13.*

<sup>e</sup> For further information on this subject, consult *Steger Diff. de Cicuta Atheniensium.* *Ehrhart Diff. de Cicuta.* *Joannis Viventii de Cicuta comment.*

<sup>f</sup> Of the most decisive instances of its fatal effects, which have occurred in this country, is that related by the late Dr. Watson in the *Phil. Transact.* in which it is fully ascertained

less powerfully so than is generally imagined.\* The symptoms produced by Hemlock, when taken in immoderate doses, are related by various authors, the principal of which have been collected by Haller and others, and stated in the following words: "Intus sumpta facit anxietates, cardialgias, vomitus, appetitum prostratum diutur-

tained by him, that two Dutch soldiers, at Waltham Abby, were killed in a very short time by eating this plant. Other proofs of this sort are given by Heins, (Pharm. rat. p. 370) which happened to some boys at Dresden. Saml. rur Geschichte von Ober. Sachs. III. p. 221. Scaliger, Subtil. Exerc. 152. Amatus Aët. Cur. 98. Cent. V. See also the cases mentioned by Wolf in Comment. lit. Nor. anno 1740 and 1749.—Wepfer. Cicut. p. 71. 312. Brassavola Examen. omn. simp. We may also notice the following from Theophrastus, (L. IX. c. 17.) Thrasyas Mantineensis remedium a se inventum fuisse gloriabatur, quod absque dolore vitam abrumperet, ex Cicutâ & Papaveris succo mistum, &c. vide Hal. Stirp. Helv. p. 338.—to which work we are obliged for many of the facts just recited. Although sheep and some other animals eat this plant with impunity, yet to many it is strongly poisonous. Three spoonfuls of the juice killed a cat in less than a quarter of an hour. Rozier, Tableau, tom. i. 1773. Upon opening those animals to which it proved fatal, inflammation of the stomach and intestines was discovered. Harder apiar. Obs. 24 & 25. Wepfer cicut. p. 334. And we may here add, what we noticed formerly under Belladonna, that vinegar has been found the most useful in obviating the effects of this poison; and that by macerating or boiling this plant in vinegar, it becomes totally inert. Lindestolpe de venenis.

\* Respecting the root of Hemlock, we have the following instances, shewing unequivocally that it does not possess any noxious power whatever. Ray relates, (Phil. Trans. XIX. vol. p. 634.) that the skilful herbalist, Mr. Petiver, ate half an ounce of the root of Hemlock, and that Mr. Henly, in the presence of Mr. Petiver, swallowed three or four ounces, without experiencing any remarkable effect; and these facts seem confirmed by the later experiments of Mr. Alchorne and Mr. Timothy Lane, neither of whom perceived any sensible effect on eating this root. Mr. Curtis says, Mr. Alchorne "assures me, that he has tried this in every season of the year, and in most parts of our island, without finding any material difference: and Mr. T. Lane informs me, that he also, with great caution, made some experiments of the like kind, and in a short time found he could eat a considerable part of a root, without any inconvenience; after this he had some large roots boiled, and found them as agreeable eating at dinner with meat as carrots, which they in taste somewhat resembled; and as far as his experience, joined with that of others, informed him, the roots might be cultivated in gardens, and either eaten raw like celery, or boiled as parsneps or carrots." (Flor. Lond.) And Murray observes, Non tamen tantopere esse Conium reformidandum, ut quidam existimant, patet inde, quod etiam infantibus tenellis impune exhibitum, nec foetum affecerit sub matris graviditate datum, nec gravidam matrem, nec detrimentum attulerit largior et per protractius tempus, ad drachmas sex extracti usque supraque intra nychthemeron, usus. Stöerck, vide Murray, Ap. Med. vol. 1. p. 216.—Quin & exstant exempla vetustiora, ingestam herbam vel succum majori adeo quantitate subinde tam homines quam bruta impune tulisse. Sic Plinius caulem viridem comedi, Sextus Empiricus feminam producit, quæ drachmam unam succi absque noxa cepit. Murray, l. c.

nam,



nam, convulsiones, cæcitatem, sopores," (l. c.) "vertiginem, dementiam, mortemque ipsam." Murray App. Med. vol. 1. p. 215.—Cicuta seems to have been, both by the Greek and Arabian physicians, very generally employed as an external remedy for tumours, ulcers, and cutaneous eruptions; it was also thought to have the peculiar power "frangere stimulum venereum;"<sup>h</sup> and this circumstance is the more remarkable, as Stoerck, Bergius, and others, recommend its internal use for complaints of a contrary nature, and adduce proofs of its aphrodisiacal powers.<sup>i</sup>

Baron Stoerck was undoubtedly the first physician, who brought Hemlock into repute as a medicine of extraordinary efficacy, by his publication in 1760; and his claim to this distinction is the stronger, as his facts only have since been able to support its reputation to any very considerable extent; nay it never succeeded so well as when under his own direction, or confined to the neighbourhood in which he resided,<sup>k</sup> and to the practice of those physicians with whom he lived in habits of intimacy and friendship.\* To enumerate all the diseases in which he sets forth the powerful efficacy of Cicuta, in four successive books on the subject, would be to give a catalogue of most of the chronic diseases with which human nature is afflicted. And Bergius, though he experienced no advantage by employing it in true cancerous affections, still recommends its use in "Ulcera fordida & siphilitica, Scabies, Morbi cutis, Gonorrhoea, Leucorrhœa, Phthisis, Impotentia virilis, Rheumatismus chronicus, Scrophula;" and he considers its *Virtus* to be "narcotica, resolvens, suppurationem promovens, diuretica." To estimate with precision the medicinal utility of Hemlock is no very easy task. Had Dr. Stoerck's publi-

<sup>h</sup> Aretæus de Morb. Acut. L. 2. c. 11. Et incrementa mammarum & testium cohibere, *Anaxilaus & Dioscorides*.

<sup>i</sup> Impotentiam virilem sub usu Conii curatam observavi, in viro quodam plusquam quadragenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit. Bergius Mat. Med. p. 195.—Dr. Cullen, however, never discovered its effects in this way.

<sup>k</sup> The general inefficacy of Hemlock experienced in this country, induced physicians at first to suppose that this plant, in the environs of Vienna and Berlin, differed widely from ours, and this being stated to Dr. Stoerck, he sent a quantity of the extract, prepared by himself, to London, but this was found to be equally unsuccessful, and to differ in no respect from the English extract. \* Collin, Locher, Quarin, Leber, &c.

cations upon this subject contained but few and less extraordinary proofs of its good effects in certain obstinate and painful diseases, the virtues of cicuta might have been held in greater estimation than they actually are:<sup>1</sup> while those authors, who have as generally condemned this medicine as uniformly useless or dangerous, seem to have done it equal injustice.<sup>m</sup> Although we have not in this country any direct facts, like those mentioned by Stoeck, proving that inveterate scirrhuses, cancers, ulcers, and many other diseases hitherto deemed irremediable, were completely cured by the Cicuta; we have, however the testimonies of several eminent physicians, shewing that some complaints, which had resisted other powerful medicines, yielded to Hemlock;<sup>n</sup> and that even some disorders, which, if not really cancerous, were at least suspected to be of that tendency, were greatly benefited by this remedy. In chronic rheumatisms, some glandular swellings, and in various fixed and periodical pains, the cicuta is now very generally employed; and from daily experience, it appears in such cases to be a very efficacious remedy. It has also been found of singular use in the chincough.\* We cannot therefore but consider this plant an important acquisition to the *Materia Medica*. Externally the leaves of hemlock have been variously applied with advantage to ulcers, indurated tumours, and gangrenes.

Much has been said respecting the variable nature of this plant, the time of collecting it, the part which ought to be preferred, and the best manner of preparing it for medical use; but as these circumstances

<sup>1</sup> That it should be of some estimation in many of the diseases, in which it is recommended by Stoeck, appears from the numerous authorities cited by Murray, who concludes with these words: "Et sic quidem in multis pertinacissimis morbis liquandi spissa, obstructa referandi et sanguinem depurandi, efficacia auxilio fuit." l. c.

<sup>m</sup> Vide Andree's Observations on Stoeck's Pamphlet, *anno* 1761. Lange Diff. dubia Cicutæ vexata. *anno* 1764. De Haen Epist. de cicuta, *anno* 1765. Bierken (*Tal om Kreaftskador*) who, with Bergius, says, that in all cancers it does mischief.

<sup>n</sup> Among those we may mention the late Drs. Fothergill and Ratty. Vide *Med. Obs. & Inquir.* vol. 3.—also in the 5th vol. the former gives an account of painful affections of the face, which he attributes to cancerous acrimony, removed by the use of cicuta.—Dr. Cullen says, "I have found it in several cases (of cancer) to relieve the pains and mend the quality of the matter proceeding from the sore, and even to make a considerable approach towards healing it." *Mat. Med.* vol. 2. 266. Several others instance its good effects in glandular diseases, and Mr. Hunter commends its use in syphilis.

° Dr. Butter on the Chincough.



seem only to produce a mere variation in the strength of the medicine, we conceive such pharmaceutical inquiries to be of very little importance, requiring only a proportionate adjustment of the dose, which, under the direction of a skilful practitioner, will always be regulated by its effects only, beginning with a few grains of the extract or powder, and increasing it daily <sup>p</sup> till a slight vertigo or other symptoms manifest the sufficiency of the dose: and unless this method has been pursued, the medicine cannot be said to have had an efficient trial.

“ An extract from the seeds is said to produce giddiness sooner than that from the leaves. Hence, while both the London and Edinburgh Colleges have given a place to the *fuccus spissatus cicutæ*, into the pharmacopœia of the latter an *extractum feminum cicutæ* is also introduced.”<sup>q</sup>

<sup>p</sup> This should also be attended to on recommencing with a fresh parcel of the medicine, as it may differ very materially from the former preparation used; of this Dr. Cullen gives a remarkable instance, strongly evincing the necessity of such a precaution, l. c.

<sup>q</sup> Duncan's Edin. New Dis.

The powder of the dried leaves of Hemlock seems to act with more certainty, and is more to be depended upon than the extract; great caution however is required in drying and preserving these leaves. Dr. Withering recommends the following method, which appears to us extremely proper: “ Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little leaves, and throw away the leaf stalks. Dry these selected little leaves in a hot sun, or in a tin dripping pan or pewter dish before the fire. Preserve them in bags made of strong brown paper, or powder them and keep the powder in glass vials, in a drawer or something that will exclude the light, for the light soon dissipates the beautiful green colour, and with its colour the medicine loses its efficacy. From 15 to 25 grains of this powder may be taken twice or thrice a day. I have found it particularly useful in chronic rheumatisms, and also in many of those diseases which are usually supposed to arise from acrimony. The nature of this book does not allow minute details of the virtues of plants, but I can assure the medical practitioner, that this is well worth his attention.” Bot. Arrang. 2d Ed. p. 280.



## DAPHNE MEZEREUM.

## MEZEREON.

*SYNONYMA.* Mezereum. *Pharm. Lond. & Edin.* Thymelæa spica cylindrica, superne foliofa. *Hal. Stirp. Helv.* n. 1024. Chamelæa Germanica. *Dodon. Purg.* p. 130. Chamelæa Germanica five Mezereon. *Gerard. Hist.* 1402. *Park.* 201. *Raii Hist.* 1587. Laureola folio deciduo, flore purpureo; officinis Laureola fœmina. *Bauh. Pin.* 462. Daphnoides. *Camer. Epit.* 937. Daphne floribus sessilibus, infra folia elliptica lanceolata. *L. Fl. Lap.* 105. Daphne Mezereum, *Flor. Dan.* 268. *Withering's Bot. Arrang.* 402.

\* Varietates sunt,

α Floribus rubris.

β Thymelæa Lauri folio deciduo, flore albo, fructu flavescente.

*Du Hamel Arb.* 2. p. 325. n. 4. *Du Roi Hort.* 1. p. 213.

Vide *Hort. Kew.*

*Class* Octandria. *Ord.* Monogynia. *L. Gen. Plant.* 485.

*Eff. Gen. Ch.* *Cor.* 4-fida corollacea, marcescens, stamina includens.

*Bacca* 1-sperma.

*Sp. Ch.* D. floribus sessilibus ternis caulinis, foliis lanceolatis deciduis.

THE Mezereon is a hardy shrub, which usually grows to the height of five or six feet, and sends off several branches; the exterior bark is smooth, and of a grey colour; the root is of a fibrous texture, of a pale colour, and covered with smooth olive-coloured bark; the leaves are few, tender, lance-shaped, sessile, deciduous, and appear at the terminations of the branches after the flowers are expanded; the

\* Dr. Ruffel found no difference in the effects of these varieties, by the trials he made with the rind, which is the only part of the root now in use.

flowers



*Daphne. Mezereum*

Deligh'd by Dr Woodville. May. 1. 1790.





flowers furround the branches in thick clusters, they are sessile, monopetalous, tubular, having the limb divided into four oval spreading segments, commonly of a purple colour; the stamina are eight, alternately shorter, and concealed within the tube of the corolla; the style is very short, the stigma flat, and the germen, which is oval, becomes a reddish berry, containing a round seed. This shrub is a native of England, though not very common. It is said to grow plentifully in some woods near Andover in Hampshire, and also about Laxfield in Suffolk; but it is generally cultivated in gardens, on account of the beauty and earliness of its flowers, which appear in February and March.

This plant is extremely acrid, especially when fresh, and if retained in the mouth excites great and long continued heat and inflammation, particularly of the throat and fauces; the berries also have the same effects, and, when swallowed, prove a powerful corrosive poison, not only to man,<sup>a</sup> but to dogs,<sup>b</sup> wolves, foxes,<sup>c</sup> &c. The bark and berries of Mezereon, in different forms, have been long externally used to obstinate ulcers and ill-conditioned sores. In France the former is strongly recommended as an application to the skin, which under certain management<sup>d</sup> produces a continued serous discharge, without blistering; and is thus rendered useful in many chronic diseases of a local nature, answering the purpose of what has been called a perpetual blister, while it occasions less pain and inconvenience.

<sup>a</sup> *Mulierculæ ruri baccas Coccumgnidii propinant in morbis rebellibus, sæpe effectu deleterio. Bergius M. M. p. 307.* A woman gave twelve grains of the berries to her daughter, who had a quartan ague; she vomited blood, and died immediately. *Wither. l. c.* As the acrimony of these berries is not immediately perceived upon being tasted, the ignorant and unwary are the more easily betrayed to swallow them.

<sup>b</sup> *Haller. l. c.*

<sup>c</sup> *Lin. Fl. Lap. p. 105.*

<sup>d</sup> As some may wish to try this practice, which is unknown to this country, and promises beneficial effects in several complaints, we shall briefly recite the usual mode in which it has been conducted:—A square piece of the recent bark, about an inch long, and three quarters of an inch broad, macerated a little in vinegar, is applied to the skin, over which is bound a leaf of ivy or plantane. This application is at first renewed night and morning till it cauterizes the part and brings on a serous discharge, when a renewal of the bark once in 24 hours is found sufficient to continue the issue for any length of time. By means of suitable plasters, we conceive that it might be applied behind the ears to relieve the eyes, and on a larger scale prove an useful practice in sundry diseases.—It must be observed however, that it sometimes produces cutaneous eruptions, which Bergius attributes to the absorption of the acrid particles of the bark. *l. c. vide Essai sur l'usage & les effets de l'écorce du Garou.*

In

In this country the Mezerion is principally employed for the cure of some syphilitic complaints, and in this way Dr. Donald Monro was the first who gave testimony of its efficacy in the successful use of the Lisbon diet drink.<sup>e</sup> A few months after this, several cases were published by Dr. Ruffel, then physician to St. Thomas's Hospital, fully establishing the utility of the cortex mezerei in venereal nodes.<sup>f</sup> He says, "the disease for which I principally recommend the decoction of mezereon root as a cure, is the node, that proceeds from a thickening of the *membrane* of the bones, which appears to be the cause of the greatest part of those tumours, at least when recent.—In a thickening of the periosteum from other causes I have seen very good effects from it." But in the nocturnal pains, accompanying syphilis, unless occasioned by the node itself, he found it necessary to join a solution of sublimate to the decoction.<sup>g</sup> We may also remark, that Dr. R. never found the decoction to increase any of the natural evacuations. Dr. Cullen observes, that "Dr. Home has not only found this decoction to cure scirrhus tumours, which remain after the lues venerea, and after the use of mercury, but that it healed also some scirrhus tumours from other causes; and that he has employed it in several cutaneous affections, and sometimes with success."<sup>h</sup>

The considerable and long continued heat and irritation that is produced in the throat when Mezereon is chewed, induced Dr. Withering to think of giving it in a case of difficulty of swallowing, seemingly occasioned by a paralytic affection. The patient was directed to chew a thin slice of the root as often as she could bear it, and in about a month recovered her power of swallowing. This woman had suffered the complaint three years, and was greatly reduced, being totally unable to swallow solids, and liquids but very imperfectly.<sup>i</sup>

<sup>e</sup> Eff. & observ. phys. & lit. p. 402. vol. 3.    <sup>f</sup> Med. Observ. & Inquir. vol. 3. p. 189.

Dr. R. first joined sarsaparilla to the mezereon, but afterwards used the following only:

R<sub>x</sub> Cort. rad. Mezerei ℥j  
Aq. fontan. cong. iſs

Coc. ad cong. j sub fin. addend. rad. glycyrrhiz. incis. ℥j. dos. lſs quater in die.

And by this many of the patients were entirely cured without ever taking mercury.

<sup>h</sup> M. M. vol. 2. p. 215.

<sup>i</sup> l. c.







*Digitalis purpurea*

Published by Dr. Woodville May 1. 1790.

## DIGITALIS PURPUREA. COMMON FOX-GLOVE.

*SYNONYMA.* Digitalis. *Pharm. Lond. & Edin.* Digitalis foliis calycinis ovatis, galea simplice. *Hal. Stirp. Helv.* no. 330. Virga regia major, flore purpureo. *Cæsalp.* 348. Aralda Bononienfibus. *Gesner.* Digitalis purpurea vulgaris. *Park.* 1653. Digitalis Purpurea. *Gerard. Herb.* 790. *J. Baub.* II. 811. *Raii Hist.* 767. *Synop.* p. 283. *Flor. Dan.* 774. *Curtis Flor. Lond.* *Withering's Account of the Fox-glove.*

Varietates.  $\alpha$  Digitalis purpurea, folio aspero. *Baub. Pin.* 243.  
 $\beta$  Digitalis alba, folio aspero. *Baub. Pin.* 244. *Hort. Kew.*

*Class.* Didynamia. *Ord.* Angiospermia. *L. Gen. Plant.* 758.

*Eff. Gen. Ch.* Cal. 5-partitus. Cor. campanulata, 5-fida ventricosa.  
*Caps.* ovata, 2-locularis.

*Sp. Ch.* D. calycinis foliolis ovatis acutis, corollis obtusis: labio superiore integro.

THE root is biennial, branched, and fibrous; the stalk is erect, simple, tapering, covered with fine hairs or down, and rises commonly to the height of four or five feet; the leaves are large, oval, narrowed towards their points, obtusely-ferrated, veined, \* downy, and stand upon short winged footstalks; the floral leaves or bractææ spear-shaped, sessile, purplish towards the point; the calyx consists of five segments, which are elliptical, pointed, nerved, or ribbed, and the uppermost segment is narrower than the others; the flowers grow in a long terminal spike, chiefly on one side, they are large, monopetalous, pendulous, bell-shaped,<sup>a</sup> purple, and marked on the inside with little eyes, or dark coloured dots, placed in whitish rings; the tubular part appears inflated, and almost cylindrical, but swelling towards the base, and opening at the limb into four irregular, short, obtuse segments, of these the uppermost is the shortest, appearing truncated or cut off transversely; the peduncles are round, short, villous, and bend

\* On the under side these veins form a kind of net-work.

<sup>a</sup> The flowers bear some resemblance to the finger of a glove; hence the name Digitalis.



downwards by the weight of the flowers; the filaments are two long and two short, white, crooked, inserted in the bottom of the tube, and crowned with large oval yellow antheræ; the style is simple, and thickening towards the stigma, which is bifid; the germen is oval, and surrounded at the bottom by a small nectarious gland; the capsule is bilocular, and contains many blackish seeds. It grows commonly about road sides and hedges, especially in dry gravelly soils, and flowers in June and July.

The leaves of Fox-glove have a bitter nauseous taste, but no remarkable smell; they have been long used externally to sores and scrophulous tumours with considerable advantage. Respecting the internal use of this plant we are told of its good effects in epilepsy, scrophula, and phthisis; but the incautious manner in which it was employed rendered it a dangerous remedy: thus we find Ray (after reciting the case of epilepsy cured by it, as mentioned by Parkinson,) says, “*Verum medicamentum hoc robustioribus tantum convenit, siquidem violenter admodum purgat & vomitiones immanes excitat.*”<sup>b</sup> and others, speaking of its successful exhibition in scrophula, remark, “*Sed ob nimiam remedii vehementiam, continuationem ejus necessariam detrectavit.*”<sup>c</sup> Yet while *Digitalis* was generally known to possess such medicinal activity, its diuretic effects, for which it is now deservedly received in the *Materia Medica*, were wholly overlooked; that to this discovery Dr. Withering has an undoubted claim, and the numerous cases of dropsy, related by him and other practitioners of established reputation, afford incontestible evidence of its diuretic powers, and of its practical importance in the cure of those diseases.<sup>d</sup> From Dr. Withering’s extensive experience of the use of the *Digitalis* in dropsies, he has been enabled to judge of its success by the following circumstances:—“It seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or in those with a tight and cordy pulse. If the belly in ascites be tense, hard, and circumscribed, or the limbs in anasarca solid and resisting, we have but little hope. On the contrary, if the pulse be feeble, or intermitting, the countenance pale, the lips livid, the skin cold, the swollen belly soft and fluctuating, the anasarcaous limbs readily pitting

<sup>b</sup> Raii Hist. p. 767. <sup>c</sup> Vide Murray’s *Ap. Med.* vol. 1. p. 192. <sup>d</sup> See his account of the Fox-glove, published 1785; a book, which, in the opinion of Dr. Cullen, “should be in the hands of every practitioner of physick,” (*M. M.*)



under the pressure of the finger, we may expect the diuretic effects to follow in a kindly manner.”<sup>e</sup> Of the inferences which he deduces, the fourth is, “that if it (*Digitalis*) fails, there is but little chance of any other medicine succeeding.” Thus we are to infer, that men of great natural strength, and under the other circumstances just mentioned, when affected with dropsy, have little to hope for from the use of this diuretic, and still less from any other medicine.<sup>f</sup> As this observation is the result of experience, and of considerable practical consequence, we wish particularly to press it on the attention of the medical reader. Although the *Digitalis* is now generally admitted to be a very powerful diuretic, and many cases may be adduced of its successful use <sup>g</sup> in addition to those already published, yet it is but justice to acknowledge that this medicine has more frequently failed than could have been reasonably expected, from a comparison of the facts stated by Dr. W.<sup>h</sup>—“The dose of the dried leaves, in powder, is from one grain to three twice a day. But if a liquid medicine be preferred, a dram

• l. c. p. 189. & seq. <sup>f</sup> In such cases Dr. W. attempts to induce a change in the constitution, and thereby to fit it for the action of the *Digitalis*. Would not repeated purging, according to Sydenham’s plan, succeed best in these cases?

<sup>g</sup> The author could bring many instances were it necessary, of the good effects of the *Digitalis*: a clinical patient at Guy’s Hospital, treated by Dr. Relph last winter, afforded a striking proof of the efficacy of this medicine in hydrothorax.

<sup>h</sup> Among the principal of the unsuccessful cases we may notice the eight fatal ones related in the Medical Memoirs by Dr. Lettsom. In reply to these cases, Dr. Withering sent me the following Letter, \* which is published by the permission of Dr. Lettsom, who authorizes me to say, that as his only object in this business is the investigation of truth, he willingly appeals to the justice and candour of the public, how far his practice is fairly represented in Dr. Withering’s letter:

S I R, \* Please to accept my thanks for your offer of inserting any thing new which I might have to say respecting the *Digitalis*; but I really have nothing new to observe, nor have I any thing to retract of what I have said before. Under my own management, under that of the medical practitioners in this part of England, and I may add, also in the hands of some worthy and respectable Clergymen in village situations, it continues to be the most certain, and the least offensive diuretic we know; in such cases, and in such constitutions, as I have advised its exhibition. I have also the satisfaction to find, by letters from some of the most eminent Physicians in different parts of England, that it is equally useful and safe in their hands. But I complain of the treatment this medicine has had in London. Its ill success there cannot be altogether owing to difference of constitutions. Dr. Lettsom has related his unsuccessful attempts with a degree of courage, and of candour, which do the highest honour to his integrity; \* but no one can compare his choice of patients, with my declarations of the fit and the unfit, or the doses he prescribed, and the perseverance he enjoyed, with my doses, rules, and cautions,||

\* Memoirs of the Med. Society of London, vol. II, p. 145. || Account of the Fox-glove p. 181, 184, et seq.  
without

dram of the dried leaves is to be infused for four hours in half a pint of boiling water, adding to the strained liquor an ounce of any spirituous water. One ounce of this infusion, given twice a day, is a medium dose. It is to be continued in these doses till it either acts upon the kidneys, the stomach, the pulse, (which it has a remarkable power of lowering) or the bowels."

without being astonished that he could suppose he had been giving this medicine "in the manner prescribed by me."†——I am fully satisfied, that, had I prescribed it in such cases, such forms, such doses, and such repetitions as he has done, the effects would, in my hands, have been equally useless, and equally deleterious. I must therefore suppose, that he had forgotten what I had written, without being conscious that his memory had deceived him. Had it been otherwise, after perusing the cases I had published at pages xx. and pages 151, &c. of my ACCOUNT, &c. he would hardly have thought it necessary to have published more instances of what I had stigmatized as *bad practice*; or to have sought for further proofs, that an active and useful medicine might be employed so as to prove a deleterious poison.

† Memoirs of the Medical Society of London, vol. II. page 169.

## ARUM MACULATUM. COMMON ARUM, or WAKE-ROBIN.

*SYNONYMA.* Arum. *Pharm. Lond. & Edin.* Arum foliis sagittatis, spatha recta, clava cylindrica. *Hal. Stirp. Helv.* n. 1302. Arum minus. *Camerar. Epit.* p. 367. Arum maculatum et vulgare non maculatum. *Baub. Pin.* 195. Arum vulgare maculatum et non maculatum. *Park.* 372. Arum vulgare. *Gerard. H.* 834. *Raii Hist.* 1208. *Wake-Robin Cuckow-pint.* *Raii Synop.* 266. Arum Maculatum. *Flor. Dan.* 505. *Flor. Lond.* *Withering's Bot. Arrang.* 1012. *Relban's Flor. Cant.* 342.

Varietates sunt

- α Arum vulgare non maculatum. *Baub. Pin.*
- β Arum maculatum, maculis candidis, vel nigris. *Baub. Pin.*
- γ Arum italicum, foliis hastatis acutis, petiolis longissimis, spatha maxima erecta. *Mill. Dict.*

*Class* Gynandria. *Ord.* Polyandria. *L. Gen. Plant.* 1028.

*Eff. Gen. Ch.* Spatha monophylla; cucullata. Spadix supra nudus, inferne femineus, medio flamineus.

*Sp. Ch.* A. acaule, foliis hastatis integerrimis, spadice clavato.





*Arum maculatum*

Published by D<sup>r</sup> Woodville May 1. 1790.





THE root is perennial, tuberous, about the size of the thumb, sending off many long simple fibres: the leaves are commonly three or four, growing from each root; these are arrow-shaped, of a deep green or purplish colour, beset with many veins and dark spots, and stand upon long grooved and somewhat triangularly shaped footstalks; the flower stalk is very short and channelled; the calyx is a sheath of one leaf, large, oval, nerved, and enclosing the spadix, which is round, club-shaped, fleshy, above of a purple colour, below whitish, standing in the centre of the sheath, and supporting the parts necessary to fructification: on tracing it towards the base we first discover the nectaries, or several oval corpuscles, which are terminated by long tapering points; next to these are placed the antheræ, which are quadrangular, united, and of a purple colour; under these we find again more nectaries, and lastly the germina, which are very numerous, round, without styles, and crowned with small bearded stigmata. This curious species of inflorescence displays itself early in spring, but the berries do not ripen till late in the summer, when they appear in naked clusters, of a bright scarlet colour, making a conspicuous appearance under the hedges, where they commonly grow.

The root is the medicinal part of this plant, which in a recent and lactescent state is extremely acrimonious, and upon being chewed excites an intolerable sensation of burning and pricking in the tongue, which continues for several hours: when cut in slices and applied to the skin, it has been known to produce blisters. This acrimony, however, is gradually lost by drying, and may be so far dissipated by the application of heat, as to leave the root a bland farinaceous aliment;<sup>a</sup> its medical efficacy therefore resides wholly in the active volatile matter, and consequently the powdered root must lose much of its power on being long kept, a circumstance which very properly caused the omission of the *Pulvis ari compositus* in the

[*Arum*, by a modern botanist, is arranged under the class *Monœcia*.]

<sup>a</sup> In this state it has been made into a wholesome bread. It has also been prepared as starch. The root, dried and powdered, is used by the French to wash the skin with, and is sold at a high price, under the name of *Cypress Powder*: It is undoubtedly a good and innocent cosmetic. Withering, l. c. — These roots are also said to possess a saponaceous quality, and have been used in washing linen, to supply the place of soap. Raii Hist. p. 1208.

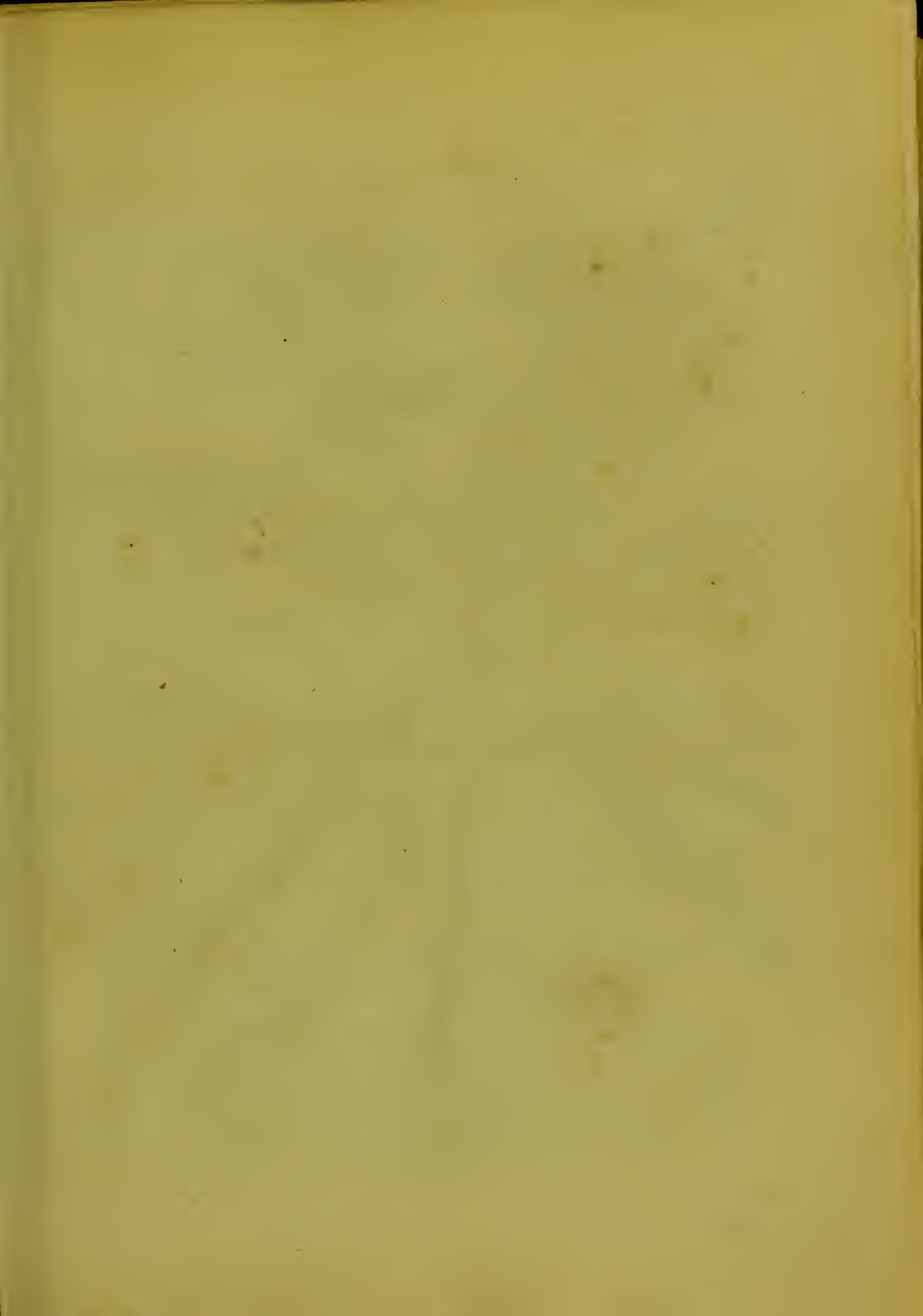
last edition of our Pharmacopœia. Lewis says, “ the fresh and moderately dried roots were digested in water, in wine, in proof spirit, and in rectified spirit, with and without heat: the liquors received no colour, and little or no taste. In distillation neither spirit nor water brought over any sensible impregnation from the Arum. The root, nevertheless, loses in these operations almost the whole of its pungency.”<sup>b</sup> The qualities of this root are thus enumerated by Bergius: “ *Virtus recent. siccatae*: stimulan, aperiens, incidens, diuretica; *recentis* vehementissima; *annosæ* || nutriens.”<sup>c</sup>—Dr. Cullen<sup>d</sup> seems to consider it as a general stimulant, not only exciting the activity of the digestive powers, where they happen to be languid, but stimulating the whole system; in proof of this he observes, that it has been useful in intermittent fevers. Arum, by ancient writers, is much commended, both as an external and as an internal remedy, and is said that “ *Ratione particularum tenuium & volatilium mucum viscidum & spissum ventriculi & intestinorum parietibus adhærentem potenter incidit, attenuat, atque resolvit;*” and was prescribed in all that numerous class of diseases formerly supposed to proceed a *fucorum lentore*. Bergius considers it useful in Colluvies pituitosa, Anorexia, Cephalæa sympathica,<sup>e</sup> Asthma humorale, Cachexia, Febris intermittens. Arum is certainly a very powerful stimulant, and by promoting the secretions may be advantageously employed in cachectic and chlorotic cases, in rheumatic affections, and in various other complaints of phlegmatic and torpid constitutions; but more especially in a weakened or relaxed state of the stomach, occasioned by the prevalence of viscid mucus. If this root is given in powder, great care should be taken that it be young and newly dried, when it may be used in the dose of a scruple or more twice a day: but in rheumatisms and other disorders requiring the full effects of this medicine, the root should be given in a recent state, and to cover the insupportable pungency it discovers on the tongue, Dr. Lewis advises us to administer it in the form

<sup>b</sup> Lewis M. M. 119. <sup>c</sup> M. M. 722. <sup>d</sup> M. M. vol. 2. 212.

|| Tales radices Ari annosæ vix acres sunt, prout supra monuimus, & quæ restare potest acrimonia, mitigatur penitus ebullitione. Cæterum plures Ari species apud varias gentes esculentæ sunt. Nutriunt omnes suo farinoso. Bergius, l. c.

<sup>e</sup> Bergius speaks highly of the efficacy of Arum in these headaches, which were of the most violent kind, and resisted all the means he employed, till he used the powder of this root, which never failed to relieve them.







*Myrtus Pimenta.*

Published by D<sup>r</sup> Woodrille. June 1. 1790.



of emulsion, with gum arabic and spermacæti, increasing the dose from ten grains to upwards of a scruple three or four times a day; in this way "it generally occasioned a sensation of slight warmth about the stomach, and afterwards in the remoter parts manifestly promoted perspiration, and frequently produced a plentiful sweat. Several obstinate rheumatic pains were removed by this medicine, which is therefore recommended to further trial."

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MYRTUS PIMENTA. PIMENTO, JAMAICA PEPPER,  
ALL-SPICE.

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*SYNONYMA.* Pimento. *Pharm. Lon.* Pimenta & Piper Jamaicensis. *Pharm. Ed.* Caryophyllus aromaticus Americanus, Lauri acuminatis foliis, fructu orbiculari. *Pluk. Phyt.* 155. f. 4. Amomum quorundam odore Caryophylli, J. B. Caryophyllus aromaticus fructu rotundo, Caryophyllon Plinii. *Baub. Pin.* Piper adoratum Jamaicense nostratibus. *Raii Hist.* 1507. Myrtus arborea aromatica foliis laurinis. *Sloane's Jam.* vol. 2. p. 76. Caryophyllus foliis oblongo-ovatis glabris alternis, racemis terminalibus et lateralibus. *Browne's Jam.* p. 247. Caryophyllus foliis lanceolatis oppositis, floribus racemosis terminalibus & axillaribus. *Miller's Dict.*

*Class* Icosandria.\* *Ord.* Monogynia. *Lin. Gen. Plant.* 217.

*Eff. Gen. Ch.* Cal. 5-fidus, superus. *Petala* 5. *Bacca.* 2. f. 3-sperma.

*Sp. Ch.* M. floribus trichotomo-paniculatis foliis oblongo-lanceolatis.

*Hort. Kew.*

Varietates,  $\alpha$  foliis oblongo-lanceolatis acuminatis; acumine obtuso.

$\beta$  foliis ovalibus obtusis. *Hort. Kew.*

\* "Some of these trees are frequently observed to be barren, which has introduced a notion among the people of Jamaica of their being male and female trees in general; and that some of the male or barren trees were necessary in every walk; which, as they are commonly many, is a vast detriment. It is however certain, that all those I have observed were hermaphrodites: and I am credibly informed, that those they call males, when lopped and broke like the rest for one or two years, do bear very well: which I am the more apt to believe, as I have never observed a distinct male or female flower on any of them." Browne, l. c.

THIS



THIS handsome myrtle grows above thirty feet in height, and two in circumference; the branches near the top are much divided, and thickly beset with leaves, which by their continual verdure always give the tree a beautiful appearance; the bark is very smooth, externally, and of a grey colour; the leaves vary in shape, and in size, but are commonly about four inches long, veined, pointed, elliptical, and of a deep shining green colour; the flowers are produced in bunches, or panicles, and stand upon subdividing or trichotomous stalks, which usually terminate the branches; the calyx is cut into four roundish segments; the petals are also four, white, small, reflex, oval, and placed opposite to each other between the segments of the calyx; the filaments are numerous, longer than the petals, spreading, of a greenish white colour, and rise from the calyx and upper part of the germen; the antheræ are roundish, and of a pale yellow colour; the style is smooth, simple, and erect; the stigma is obtuse; the germen becomes a round succulent berry, containing two kidney-shaped flattish seeds. This tree is a native of New Spain and the West-India islands. In Jamaica it grows very plentifully, and in June, July, and August puts forth its flowers, which, with every part of the tree, breathes an aromatic fragrance.<sup>a</sup>

The Pimento tree was first introduced and cultivated in this country by Mr. Phil. Miller in 1739, and the figure we have annexed was drawn from a recent specimen, obtained from the garden of his Grace the Duke of Northumberland at Sion-House, where the plant is now in full bloom. Pimento, or the berries of this species of myrtle, are chiefly imported into England from Jamaica, and hence the name Jamaica Pepper. It is also named All-spice from its taste being supposed to resemble that of many different species mixed together.—When the berries arrive at their full growth, but before they begin to ripen,<sup>b</sup> they are picked from the branches, and exposed to the sun for

<sup>a</sup> “ The leaves and bark are full of aromatic particles, which make them (the planters) extremely cautious of fire in all *Pimento walks*; where, if it should once catch, it runs with great fury.” Browne, l. c.

<sup>b</sup> “ Such of the berries as come to full maturity do, like many other seeds, lose that aromatic warmth for which they are esteemed, and acquire a taste perfectly like that of Juniper berries, which renders them a very agreeable food for the birds, the most industrious planters of these trees.” Browne, l. c. “ The berries when ripe are of a dark

for several days, till they are sufficiently dried; this operation is to be conducted with great care, observing that on the first and second day's exposure they require to be turned very often, and always to be preserved from rain and the evening dews. After this process is completed, which is known by the colour and rattling of the seeds in the berries, they are put up in bags or hogsheds for the market. This spice, which was at first brought over for dietetic uses, has been long employed in the shops as a succedaneum to the more costly oriental aromatics; "it is moderately warm, of an agreeable flavour, somewhat resembling that of a mixture of cloves, cinnamon, and nutmegs. Distilled with water it yields an elegant essential oil, so ponderous as to sink in the water, in taste moderately pungent, in smell and flavour approaching to oil of cloves, or rather a mixture of cloves and nutmegs. To rectified spirit it imparts, by maceration or digestion, the whole of its virtue: in distillation it gives over very little to this menstruum, nearly all its active matter remaining concentrated in the inspissated extract.

Pimento can scarcely be considered as a medicine: it is, however, an agreeable aromatic, and on this account is not unfrequently employed with different drugs, requiring such a grateful adjunct. Both the Pharmacopœias direct an aqueous and spirituous distillation to be made from these berries, and the Edinburgh College order also the *Oleum essentielle piperis Jamaicensis*.

dark purple colour, and full of a sweet pulp, which the birds devour greedily, and muting the seeds, afterwards propagate these trees in all parts of the woods. It is thought that the seeds passing through them, in this manner, undergo some fermentation, which fits them better for vegetating than those gathered immediately from the tree; and I believe this is the fact." Long's Jamaica, vol. 3. p. 703.

## LAURUS CINNAMOMUM. CINNAMON-TREE.

*SYNONYMA.* Cinnamomum. *Pharm. Lond. & Edin.* Cassia cinnamomea. *Herm. Lugd. Bat.* 129. t. 655. *Pluk. Almag.* 88. Cinnamomum foliis latis ovatis frugiferum. *Burm. Zeyl.* 62. t. 27. Arbor canellifera Zeylanica, cortice acerrimo seu præstantissimo, qui Cinnamomum Officinarum. *Breyn. Prod.* ii. 17. Cinnamomum five Canella Zeylanica. *Baub. Pin.* 408. Canella feu Cinnamomum vulgare. *Baub. Hist.* 1446. The Cinnamon-tree of Ceylon. *Raii Hist.* 1561. Laurus Cinnamomum. *Jacq. Americ.* p. 59. t. 117. Rasse Coronde. *Zeylonarum.*

*Class* Enneandria. *Ord.* Monogynia. *L. Gen. Plant.* 509.

*Eff. Gen. Ch.* *Cal.* o. *Cor.* calycina, 6 partita. *Nectarium* glandulis 3, bifetis, germen cingentibus. *Filamenta* interiora glandulifera. *Drupa* 1-sperma.

*Sp. Ch.* L. foliis trinerviis ovato-oblongis: nervis versus apicem evanescentibus.

THIS valuable and elegant laurel rises above twenty feet in height; the trunk extends about six feet in length, and one foot and a half in diameter; it sends off numerous branches, which are covered with smooth bark, of a brownish ash colour; the leaves stand in opposite pairs upon short footstalks; they are of an ovalish oblong shape, obtusely pointed, entire, firm, from three to five inches long, of a bright green colour, and marked with three whitish longitudinal nerves; the common peduncles grow from the younger branches, and after dividing, produce the flowers in a kind of paniculated umbel. The petals are six, oval, pointed, concave, spreading, of a greenish white or yellowish colour, and the three outermost are broader than the others; the filaments are nine, shorter than the corolla, flattish, erect,





*Laurus Cinnamomum.*



erect, standing in ternaries, and, at the base of each of the three innermost, two small round glands are placed; the antheræ are double, and unite over the top of the filament; the germen is oblong, the style simple, of the length of the stamina, and the stigma is depressed and triangular: the fruit is a pulpy pericarpium, resembling a small olive of a deep blue colour inserted in the corolla, and containing an oblong nut.

The true Cinnamon-tree is a native of Ceylon, where, according to Ray, it grows as common in the woods and hedges as the hazel with us, and is used by the Ceyloneſe for fuel and other domestic purposes. Its cultivation was first attempted in this country about the year 1768 by Mr. Philip Miller, who observes "that the Cinnamon and Camphire-trees are very near akin," and that if the berries of these trees were procured from the places of their growth, and planted in tubs of earth, the plants might be more easily reared than by layers, which require two years or more before they take root. We wish, however, to caution those who make the trial, to plant this fruit immediately upon being obtained from the tree; for Jacquin remarks, "Cæterum ad ſationem transportari ſemina nequeunt, quum paucos intra dies nucleï corrumpantur, atque effœti evadunt."<sup>a</sup> Ray ſeems to think that the *Cassia cinnamomea* of Herman, the *Cassia lignea*, and the *Cassia fiſtula* of the ancient Greek writers, were the ſame, or varieties of the ſame ſpecies of plant.<sup>b</sup> But an inquiry of more importance is, whether the Cinnamon of Ceylon is of the ſame ſpecies as that growing in Malabar, Sumatra, &c. differing only through the influence of the ſoil and climate in which it grows, or

<sup>a</sup> Jacquin's Americ. At Ceylon, "it is particularly owing to a certain kind of Wild Doves, which, from their feeding on the fruit of the Cinnamon-tree, they call *Cinnamon-eaters*, that these trees grow ſo plentifully in this iſland." A. Seba Ph. Tranſ. vol. 36. p. 105.

<sup>b</sup> It is neceſſary to obſerve, that the ancient ſignification of theſe names is very different from the modern. The younger branches of the tree, with their bark covering them, were called by the Greek writers *κινναμωμον* Cinnamomum, and ſometimes *ξύλοκαſία*, or *Cassia lignea*; but when they were diveſted of their bark, which by its being dried became tubular, this bark was denominated *καſία ſυδιγξ*, or *cassia fiſtula*.—But as in proceſs of time the wood of this tree was found uſeleſs, they ſtripped the bark from it, and brought that only; which cuſtom prevails at this day. See Account of the Cinnamon-tree by Dr. Watſon, Phil. Tranſ. vol. 47.

from



from the culture or manner of curing the Cinnamon. Mr. White and Mr. Combes, who have investigated this subject with considerable attention, agree with Gracias, and determine this question in the affirmative.\*

The use of the Cinnamon-tree is not confined to the bark, for it is remarkable that the leaves, the fruit, and the root, all yield oils of very different qualities, and of considerable value: that produced from the leaves is called Oil of Cloves, and *Oleum Malabathri*: that obtained from the fruit is extremely fragrant, of a thick consistence, and at Ceylon is made into candles, for the sole use of the King; and the bark of the root not only affords an aromatic essential oil, or what

\* According to many botanical writers the principal marks of distinction of these plants are to be found in the leaf, which in the Cinnamon of Ceylon is more oval and less pointed than the others, and the nerves do not reach to the margin; while in the Cinnamon of Sumatra they are said to be continued to the extremity of the leaf. — Respecting the bark it is well known to be less warm and grateful to the taste, manifesting that viscosity on being chewed which is never observable in the Ceylon Cinnamon. But Mr. White, with the assistance of Dr. Matty, carefully compared the specimens of the Cinnamon-tree, (commonly called *Cassia*) which he had from Sumatra, with those from Ceylon, preserved in the British Museum, which were the collections of Boerhaave, Courteen, Plukenet, and Petiver, and found the difference so inconsiderable, as fully to justify his opinion. In Murray's edition of the *Systema Veg.* we find superadded to the description of *Cassia*, "*Esse modo Varietatem præcedentis, (Cinnam.) foliis angustioribus et obtusioribus, Thunberg in Act. Stockh. 1780. p. 56.*" The difference of the bark itself is thus stated by Ray, "*Officinæ nostræ Cassiam ligneam a Cinnamomo seu Canella distinctam faciunt, Cassiam Cinnamomo crassiorem plerumque esse colore rubicundiorem, substantiâ duriorem, solidiorem & compactiorem, gustu magis glutinoso, odore quidem & sapore Cinnamomum aptius referre, tamen Cinnamomo imbecilliorum & minus vegetum esse ex accurata observatione. Tho. Johnson.*" But Mr. White says, "From the specimens I shall now produce, it will most plainly appear, that these differences are merely accidents, arising from the age of the Canella, the part of the tree from whence it is gathered, and from the manner of cultivating and curing it." And he observes, "If any conjecture can arise from hence, it may be, that the Cinnamon of Ceylon was formerly, as well as that of Sumatra and Malabar, called *Cassia*; but that the Dutch writers, being acquainted with the excellent qualities which the ancients ascribed to their Cinnamon, chose to add the name Cinnamon to that of *Cassia*; and in process of time they have found the name of Cinnamon more profitable than that of *Cassia*, by which we chuse to call our Canella, to our national loss of many thousands a year." (*Phil. Trans. vol. 50. p. 887.*) How far the reasoning of Mr. White is really well founded, we leave to the judgment of others; it may however be remarked, that his opinion is not a little supported, from the consideration that the Cinnamon plant varies exceedingly, even in the island of Ceylon, where Burman collected nine different sorts, and Seba actually describes ten.

has

has been called Oil of Camphor, and of great estimation for its medical use, but also a species of camphor, which is much purer and whiter than that kept in the shops.

The spice, so well known to us by the name of Cinnamon, is the inner bark of the tree;<sup>c</sup> and those plants produce it in the most perfect state, which are about six or seven years old, but this must vary according to circumstances. Seba says, "Those which grow in the vallies, where the ground is a fine whitish sand, (and there are many such vallies in the island of Ceylon) will in five years time be fit to have the bark taken off. Others, on the contrary, which stand in a wet slimy soil, must have seven or eight years time to grow before they are ripe enough." And the bark of those trees, which stand in a very dry soil, and much exposed to the sun, has often a bitterish taste, which Seba attributes to "the camphor being by the sun's rays rendered so thin and volatile, that it rises up and mixes with the juice of the tree." The bark, while on the trees, is first freed of its external greenish coat; it is then cut longitudinally, stripped from the trees, and dried in sand, till it becomes fit for the market, when it is of a reddish yellow, or pale rusty iron colour, very light, thin, and curling up into quills or canes, which are somewhat tough, and of a fibrous texture. It is frequently mixed with cassia, which is distinguished from the Cinnamon by its taste being remarkably slimy. This bark is one of the most grateful of the aromatics; of a very fragrant smell, and a moderately pungent, glowing, but not fiery taste, accompanied with considerable sweetness, and some degree of astringency. Its aromatic qualities are extracted by water in infusion, but more powerfully by it in distillation, and in both ways also by a proof spirit applied. Cinnamon is a very elegant and useful aromatic, more grateful both to the palate and stomach than most other substances of this class: by its astringent quality, it likewise corroborates the viscera, and proves of great service in several kinds of alvine fluxes, and immoderate discharges from the uterus. The aromatic principle is an essential oil, which is obtained by distilling

<sup>c</sup> "If you taste the inner membrane of the bark when fresh taken off, you will find it of most exquisite sweetness, whereas the outward part of the bark differs but very little in taste from the common trees; but in drying, the oily and agreeable sweetness communicates and diffuses itself throughout the whole outward part." Seba l. c.



at once large quantities of this spice, or rather cassia, which is usually employed in these operations; and the oil thus separated is so extremely pungent, that on being applied to the skin it produces an eschar; in doses of a drop or two diluted, by means of sugar, mucilages; &c. it is one of the most immediate cordials and restoratives in languors, singultuses, and all debilities. This oil is imported from the East-Indies, and a tincture, a simple, and a spirituous water, are directed by the Pharmacopœias to be prepared from this spice.

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GLECOMA HEDERACEA.      GROUND-IVY, Or, GILL.

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*SYNONYMA.* Hedera terrestris. *Pharm. Edin. Gerard.* 856. *Raii Hist.* vol. 1. 567. *Synop.* 243. Hedera terrestris vulgaris. *Baub. Pin.* 306. *Park. Theat.* 676. Chamæcissus five Hedera terrestris. *J. Baub.* vol. 3. 855. Chamæclema caule procumbente radicato, foliis reniformibus, rotunde crenatis. *Hal. Stirp. Helv.* No. 245. Glecoma hederacea. *With. Bot. Arrang.* 603. *Relhan Flor. Cant.* 225. *Curtis Flor. Lond.* *Flor. Dan.* t. 789.

*Class* Didynamia. *Ord.* Gymnospermia. *L. Gen. Plant.* 714.

*Ess. Gen. Gb.* Anthærarum singulum par in formam crucis connivens.  
*Calyx* 5-fidus.

*Sp. Ch.* G. foliis reniformibus crenatis.

THIS plant has a small, perennial, creeping, fibrous root, which puts forth stalks from six inches to a foot and a half in height; these are square, procumbent, and at the knots or joints woolly; the leaves are of a roundish kidney-shape, scolloped, hairy, and stand in opposite pairs upon channelled footstalks; the flowers grow in verticilla, or whorls of three, four, or five together, on short peduncles, placed about the footstalks of the leaves; the calyx is tubular, permanent, striated,





*Glecoma hederacea.*



friated, rough, and divides into five unequal pointed segments; the flower is blue, monopetalous, bilabiated, with a slender compressed tube; the upper lip is cleft, erect, blunt, the lower lip is expanded, large, divided into three lobes, of which the middle one is the largest, and is notched at the end; the bractæ are small, tapering, and grow from the peduncles; the filaments are four, two long and two short, covered by the upper lip, and the antheræ of each pair approach so as to form a cross; the style is filiform, the stigma is bifid, and pointed; the seeds are four, oval, naked, and lodged in the calyx. It is a well known plant, growing commonly under hedges, and flowering in April.

Ground-ivy has a peculiar strong smell,<sup>a</sup> and its taste is bitterish, and somewhat aromatic. It is one of those plants which was formerly in considerable estimation, and supposed to possess great medicinal powers, but which later experience has been unable to discover; in proof of this, its name is omitted in the catalogue of the materia medica by the London College. The qualities of this plant have been described by different authors, as pectoral, detergent, aperient, diuretic, vulnerary, corroborant, errhine, &c.—and it has been variously recommended for the cure of those diseases to which these powers seemed most adapted, but chiefly in pulmonary<sup>b</sup> and nephritic<sup>c</sup> complaints. In obstinate coughs it is a favourite remedy with the poor, who probably experience its good effects by still persevering in its use. Ray, Mead, and some others, speak of its being usefully joined with fermenting ale;\* but Dr. Cullen observes, “it appears to me frivolous. In short, in many cases where I have seen it employed, I have had no evidence either of its diuretic or of its pectoral effects. In

<sup>a</sup> Dr. Withering has observed, that the leaves are “beset underneath with hollow dots, in which are glands secreting an essential oil, and above with little eminences, but which do not secrete any odoriferous oil; for this surface being rubbed gives out no peculiar scent, whereas the under surface affords a pleasant reviving scent.” l. c.

<sup>b</sup> Willis, Pharm. rat. sect. 1. c. 6. Morton, Phthisiologia, lib. 3. Cap. 5. Sauvages Nosol. Tom. 3. P. 2. cap de phthisi. Ettmuller, Oper. T. p. 639. Scardona Aphoris. lib. 2. p. 69. River. Prax. P. 1. p. 397. See also Ray, Gerard, Miller, and others.

<sup>c</sup> Paulli Quadrip. bot. p. 74. Sennertus. Oper. T. 3. p. 576. Plater. Prax. Tom. 2. p. 499. Reusn. Observ. Med. p. 90. apud Welch. Mead Mon. et præc. med. p. 97.

\* From the general use of Ground-ivy, mixed with ale, &c. it acquired the name of Ale-hoof and Tun-hoof.



common with many other of the verticillatæ, it may be employed as an errhine, and in that way cure a head-ach,<sup>d</sup> but no otherways by any specific quality." It is usually taken in the way of infusion, or drunk as tea.

<sup>d</sup> Ray gives a remarkable instance of its efficacy in this way, in the case of Mr. Oldacres, and says, "Succus hujus plantæ naribus attractus cephalalgiam etiam vehementissimam & inveteratam non lenit tantum sed & penitus aufert—Medicamentum hoc non satis potest laudari, si res ex usu æstimarentur, auro æquiparandum." l. c.

## COCHLEARIA OFFICINALIS. COMMON SCURVY-GRASS.

*SYNONYMA.* Cochlearia hortensis. *Pharm. Lond. & Edin.* Cochlearia. *J. Baub.* 2. 942. Cochlearia rotundifolia. *Gerard.* 324. Cochlearia folio subrotundo. *Baub. Pin.* 110. Cochlearia major rotundifolia five Batavorum. *Park.* 285. Cochlearia. *Raii Hist. Spec.* 1. p. 822. *Synop.* 302. Nasturtium foliis radicalibus subrotundis, caulinis oblongis, subsinuatis. *Hal. Stirp. Helv.* No. 503. Cochlearia officinalis. *With. Bot. Arrang.* 677. *Flor. Dan.* t. 135.

*Class* Tetradynamia. *Ord.* Siliculosa. *L. Gen. Plant.* 803.

*Eff. Gen. Ch.* Silicula emarginata, turgida, scabra; volvulis gibbis, obtusis.

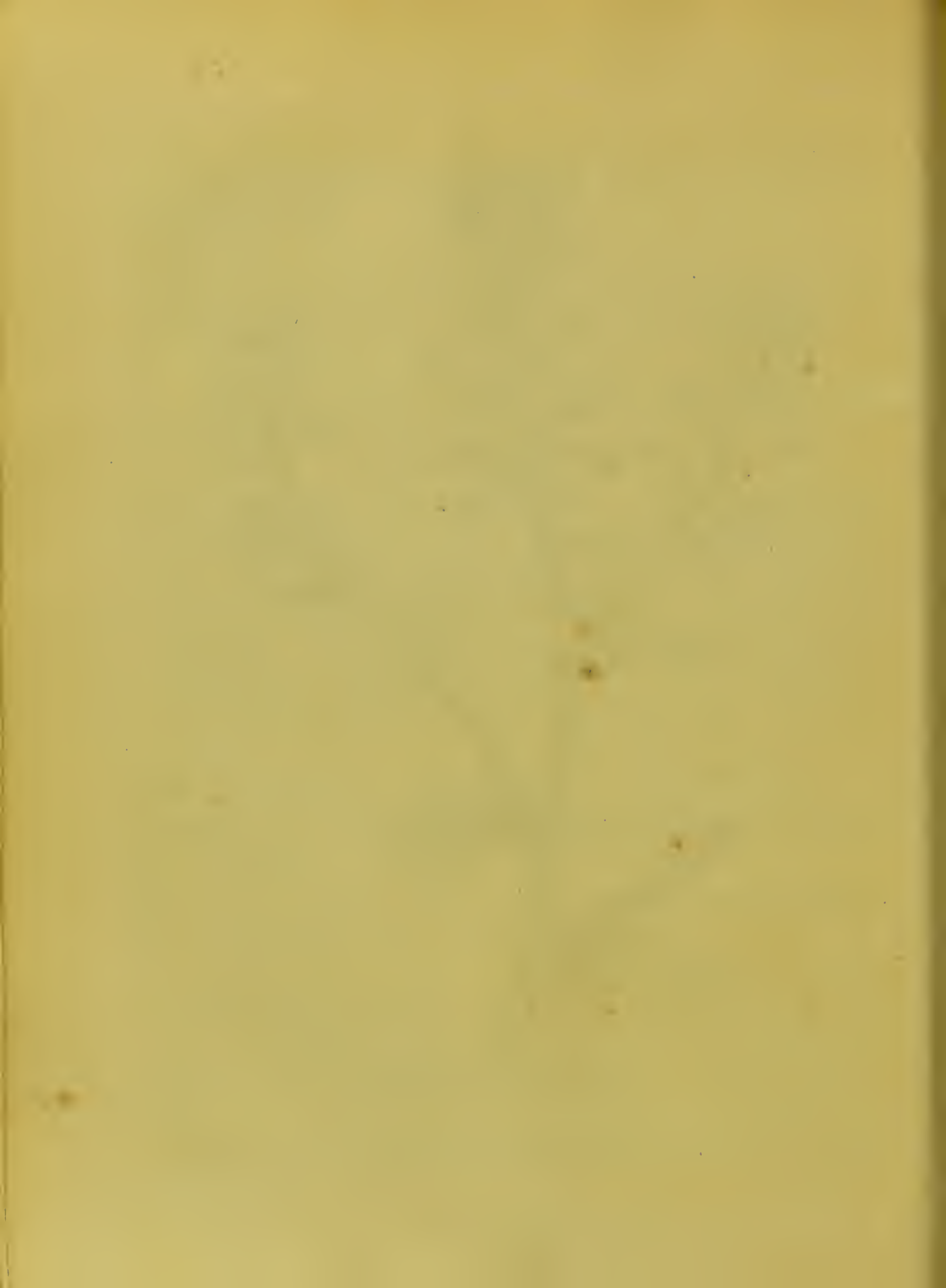
*Sp. Ch.* C. foliis radicalibus cordato-subrotundis; caulinis oblongis subsinuatis. *Caulis ramosus.*

THE root is perennial, fibrous, and usually produces several upright branched angular stems, about a span high; the radical leaves are heart or kidney-shaped, fleshy, succulent, and stand upon long footstalks; the stem-leaves alternate, rhomboidal, blunt, and dentated on each side; towards the top the leaves are sessile, or embracing the stem, but towards the bottom they are frequently upon short broad footstalks; the flowers are cruciform, and stand upon short peduncles, terminating



*Cochlearia officinalis.*

Published by D<sup>r</sup> Woodville June 1. 1790.





terminating the branches in thick clusters; the calyx consists of four leaflets, which are oval, blunt, concave, gaping, deciduous, and whitish at the margin; the petals are four, white, oval, spreading, and twice the length of the calyx; the filaments are six, four long and two short, greenish, tapering, and crowned with yellow antheræ; it has no style, and the germen becomes a small roundish compressed pod, containing rough seeds. It is found on the mountains of Scotland, Cumberland, and Wales, but more commonly about the Sea shores: it flowers in April and May.

We have figured this plant from a specimen obtained from Mr. Curtis's botanic garden at Brompton, where it differs in no respect from the same plants growing in their native soil, a circumstance which induces many to cultivate Scurvy-grass in gardens for medical use. It has an unpleasant smell, and a warm acrid bitter taste. "Its active matter is extracted by maceration both in watery and in spirituous menstrua, and accompanies the juice obtained by expression. The most considerable part of it is of a very volatile kind; the peculiar penetrating pungency totally exhaling in the exsiccation of the herb, and in the evaporation of the liquors. Its principal virtue resides in an essential oil, separable in a very small quantity, by distillation with water."<sup>a</sup>—Scurvy-grass<sup>b</sup> is antiseptic, <sup>c</sup>attenuant, aperient, and diuretic, and is said to open obstructions of the viscera and remoter glands, without heating or irritating the system; it has been long considered as the most effectual of all the antiscorbutic plants,\*

<sup>a</sup> Lewis M. M. 242. "The oil is so ponderous as to sink in the aqueous fluid, but of great volatility, subtilty, and penetration. One drop dissolved in spirit, or received on sugar, communicates to a quart of wine, or other liquors, the smell and taste of Scurvy-grass." Lewis l. c.

<sup>b</sup> This species is now preferred to all the other species of *Cochlearia* for its medical use.

<sup>c</sup> See the experiments of Sir John Pringle.

\* We have testimony of its great use in scurvy, not only from physicians, but navigators, as Anson, Linschoten, Maartens, Egede, and others. And it has been justly noticed, that this plant grows most plentifully in those high latitudes, where the scurvy is most obnoxious: Forster found it in great abundance in the islands of the South Sea. In Islandia parant incolæ hanc herbam cum lacte acidulato vel ejus fero; condiunt eam etiam sale culinari in magnis doliis, & per hiemem servant. Cum oves in locis, ubi *Cochlearia* crescit, pascuntur, avidè quidem illam edunt & valde pinguescunt, sed caro nauseoso sapore inficitur. Olafsen. *Reise durch Island*, T. 1. p. 257. Vide Berg. M. M. 557.

and its sensible qualities are sufficiently powerful to confirm this opinion. In the rheumatismus vagus, called by Sydenham Rheumatismus scorbuticus, consisting of wandering pains of long continuance, accompanied with fever, this plant, combined with Arum and wood-forrel, is highly commended both by Sydenham and Lewis.<sup>d</sup>—A remarkably volatile and pungent spirit, prepared from this herb, and known by the name of *Spiritus antiscorbuticus s. mixtura simplex antiscorbutica Drawitzii*.<sup>‡</sup> (*Pharm. Wert.*) was found by Werlhof<sup>e</sup> to be a useful remedy in paralysis and other diseases requiring an active and powerful stimulant, given in the dose of thirty drops several times a day. But as an antiscorbutic, neither this, nor the conserve promises so much benefit as the fresh plant, eaten as salad, or the expressed juice, as directed in the Pharmacopœias.

<sup>d</sup> Opera 278. M. M. 241.

<sup>‡</sup> Fit ex spiritu tartari et spiritu cochleariæ, quibus vitriolum ad rubidinem calcinatum irroratur, succedente digestionem et distillatione. Murray Ap. Med. vol. 2. p. 347.

<sup>e</sup> Obs. de febr. p. 145. Dr. Cullen observes, that “several foreign dispensaries have ordered it to be treated by distillation with spirit of wine, and have thereby obtained a volatile poignant spirit, that may prove a useful stimulus in several cases. It may probably be improved by a combination with the volatile acid of tartar, as in the spiritus antiscorbuticus *Drawitzii*, and in this state may be a useful stimulant in paralytic cases; it may also be employed as a diuretic, and in this way also be useful in scurvy.” M. M. vol. 2. 165.

CARDAMINE PRATENSIS.







*Cardamine pratensis*

Enlign'd by W. Woodville. June 1. 1790.

CARDAMINE PRATENSIS. COMMON LADIES-SMOCK,  
Or, CUCKOW-FLOWER.

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*SYNONYMA.* Cardamine. *Pharm. Lond. & Edin.* Nasturtium pratenſe magno flore. *Bauh. Pin.* 104. Nasturtium pratenſe majus feu Cardamine latifolia. *Park.* 825. Iberis Fuchſii feu Nasturtium pratenſe fylveſtre. *J. B.* 2. 889. Cardamine. *Gerard. Raii. Hiſt. Sp.* 2. p. 814. *Synop.* 299. Cardamine foliis pinnatis radicalibus ſubrotundis, caulinis linearibus. *Hal.* No. 473. Cardamine pratenſis. *With. Bot. Arrang.* 688. *Relban. Flor. Cant.* 255. *Curt. Flor. Lond.* α Floribus ſimplicibus. β Floribus plenis. *H. Kew.* Σιςτυμβριον ἑτερον. *Dioſcor.*

*Clafs* Tetradynamia. *Ord.* Siliquoſa. *L. Gen. Plant.* 812.

*Eff. Gen. Ch.* Siliqua elatiſce diffiliens valvulis revolutis. *Stigma* integrum. *Cal.* ſubhians.

*Sp. Ch.* C. foliis pinnatis: foliolis radicalibus ſubrotundis; caulinis lanceolatis.

THE root is perennial, branched, and ſends off many long round fibres; the ſtalk is erect, round, ſmooth, ſometimes branched towards the top, and riſes about nine inches high: the leaves are pinnated, radical leaves frequently wanting, otherwiſe ſpreading in an orbicular ſhape, with roundiſh pinnæ, which are dentated, or cut into ſeveral irregular unequal angles; the leaves upon the ſtalk are erect, and conſiſt of four or five pair of pinnæ, which are narrow, ſpear-shaped, concave, pointed, and the odd or terminal leaflets are the largeſt; the flowers terminate the ſtem in a cluster or racemus, and ſtand upon ſmooth naked peduncles; the calyx is compoſed of four ſcaly leaves, which are oblong, obtuſe, concave, deciduous, and alternately protuberant at the baſe; the corolla is cruciform, and of a purpliſh white colour; the petals are obverſely veined, ſomewhat notched at  
the

the apex, and yellowish at the base; the filaments are six, four long and two short, invested at the bottom with four nectareous glands; the antheræ are small, oblong, and placed upright upon the summits of the filaments; there is no style; the germen is round, slender, about the length of the stamina, and becomes a long compressed pod of two valves, which, on opening, roll back in a spiral manner, and in the cells are contained many round seeds. It is common in meadows and moist pastures, producing its flowers in April and May.

This plant has the same sensible qualities as water-cress, though in an inferior degree to it, and indeed to most of that class of plants, called by Dr. Cullen *filiquosæ*, which comprehends both the orders of *filiquosa* and *filiculosa* of Linnæus, and the cruciform of Tournefort. It is the flower of the Cardamine which has a place in the *materia medica* of the British Pharmacopœias, upon the authority of Sir George Baker, who, in the year 1767, read a paper at the London College, recommending these flowers as an antispasmodic remedy,<sup>a</sup> which has since been published in the *Medical Transactions*.<sup>b</sup> In this account Sir George relates five cases<sup>c</sup> wherein the *flores cardamines* were successfully used; and in a P. S. to the second edition, he says, "Since the first edition of this volume, I have seen several instances of the good effects of *flores cardamines* in convulsive disorders." In Epilepsy, however, this remedy has been generally found unsuccessful. Greeding, who tried it in a great number of cases, and in large doses, experienced but one instance of its good effects.<sup>d</sup> The dose of the powdered flowers is from half a dram to two drams.

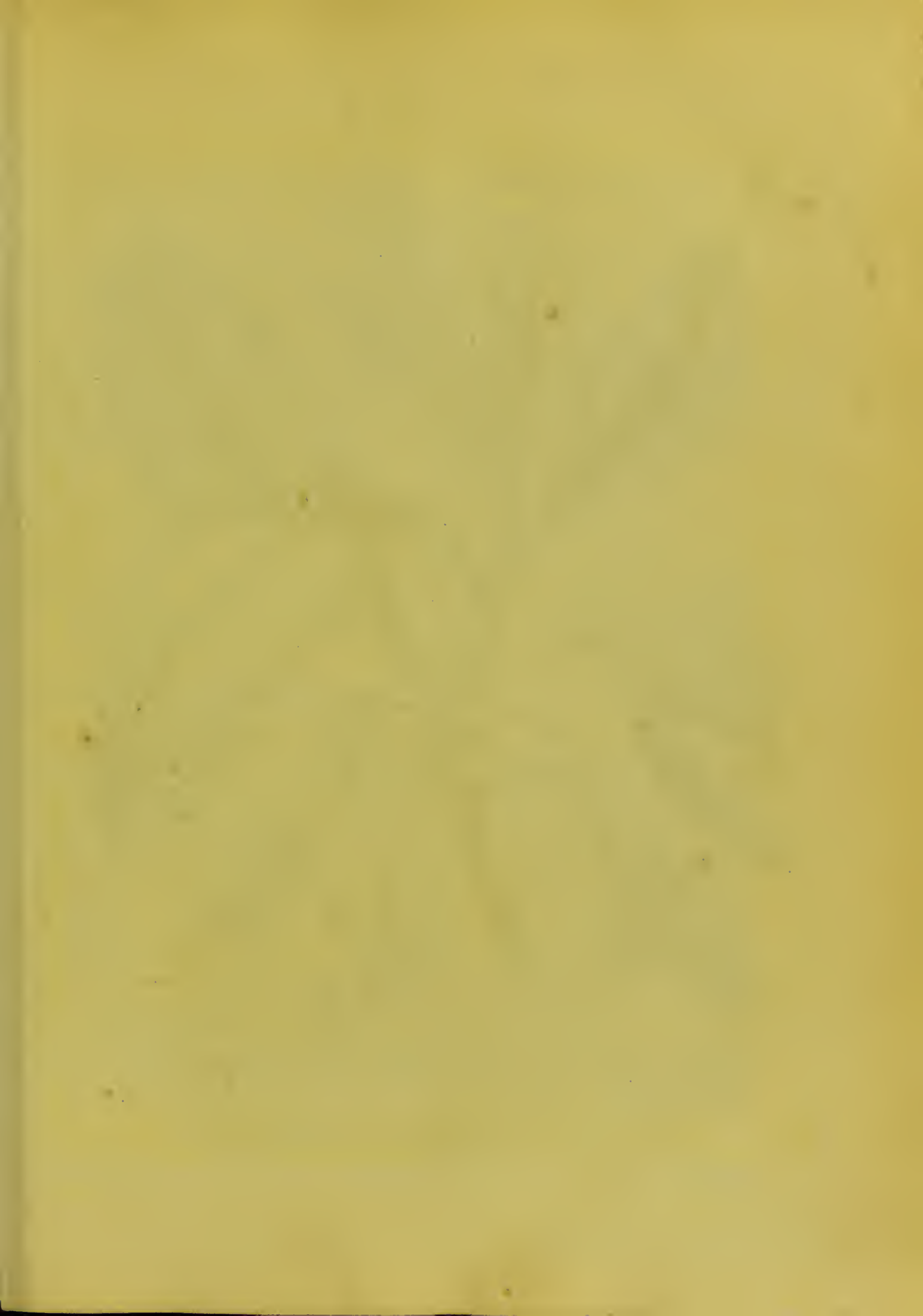
<sup>a</sup> We find no account of the use of these flowers but by Dale, who says of the plant, "Calida & acris est, & nasturtii pollet viribus. Flos in convulsionibus laudatur ex MSS. D. Tancred Robinson, M. D." *Pharmacol*, 204.

<sup>b</sup> *Medical Transactions*, vol. 1. 442.

<sup>c</sup> Viz. two of chorea sancti Viti, one of spasmodic asthma, an hemiplegia accompanied with convulsions on the palsied side, and a case of remarkable spasmodic affections of the lower limbs; the two first were cured in less than a month; the two second were also happily removed: but in the last case the patient had experienced some relief from the flor. card. when she was seized with a fever which proved fatal. See l. c.

<sup>d</sup> Ludwig. *Advers. Medico-pract.* Vol. 3. P. 3. p. 564.







*Laurus Sassafras*

## LAURUS SASSAFRAS.

## SASSAFRAS-TREE.

*SYNONYMA.* Sassafras. *Pharm. Lond. & Edinb.* Cornus mas odorata, folio trifido, margine plano, Sassafras dicta. *Pluk. Alm.* 120. *Catesb. Carolin.* 1. p. 55. Sassafras five lignum pavanum. *J. Bauh.* i. 483. Sassafras, arbor ex Florida, ficulneo folio. *Bauh. Pin.* 431. Sassafras. *Gerard emac.* 1525. *Park. Theat.* 1606. *Raii Hist.* ii. 1568. Laurus foliis integris trilobisque. *Trew. Ehret.* t. 69. *Dubam. Arb.* 1. p. 350. *Kalm. Canad.* 2. p. 270.

*Class* Enneandria. *Ord.* Monogynia. *L. Gen. Plant.* 503.

*Eff. Gen. Ch.* Cal. 0. Cor. calycina, 6-partita. Nectarium glandulis 3, bifetis, germen cingentibus. Filamenta interiora glandulifera. Drupa 1-sperma.

*Sp. Ch.* L. fol. trilobis integrisque.

THE Sassafras tree rises sometimes to the height of twenty or thirty feet,\* and is about twelve or fifteen inches in diameter, but it is commonly of much less growth, and is divided towards the top into several crooked branches: the bark of the young shoots is smooth and green, of the old trunks it is rough, furrowed, and of a light ash-colour: the leaves vary both in form and size, some being oval and entire, others cut into two or three lobes; they are all of a pale-green colour, veined, downy on the under side, and placed alternately upon long footstalks: the flowers are produced in pendent spikes or panicles, which spring from the extremities of the shoots of the preceding year; they appear in May and June, and are generally male and female upon different trees: the corolla is divided into six leaves, which are narrow, convex, and of a dingy yellow

\* Vide Marshall's *Arbustum Americanum*, p. 75.



colour; the male flowers have nine<sup>a</sup> filaments, crowned with round antheræ; the bractæ are linear, and placed at the base of the pedicles; there is no calyx, and the berries produced by the female flowers are similar in shape and colour<sup>b</sup> to those of the cinnamon. [see plate 27.]

The Sassafras tree is a native of North America,<sup>c</sup> and appears to have been cultivated in England sometime before the year 1633, for in Johnson's edition of Gerard, he says, "I have given the figure of a branch taken from a little (Sassafras) tree, which grew in the garden of Mr. Wilmote at Bow."† It is said that the Sassafras-tree was first discovered by the Spaniards in 1538, when they possessed themselves of Florida;<sup>d</sup> and the wood was first imported into Spain about the year 1560, where it acquired great reputation for curing various diseases.<sup>e</sup> It is now usually imported here in long straight pieces, very light, of a spongy texture, and covered with a rough fungous bark. It has a fragrant smell, and a sweetish aromatic subacid taste: the root, wood, and bark, agree in their medical qualities, and are all mentioned in the pharmacopœias; but the bark is the most fragrant, and thought to be more efficacious than the woody part, and the small branches are preferred to the large pieces. "The virtues of Sassafras are extracted totally by spirit, but not perfectly by water. Distilled with the latter it yields a fragrant essential oil of

<sup>a</sup> Miller says eight, but in the specimen figured, which was procured from a male tree in the King's garden at Kew, nine stamina were observed in all the flowers.

<sup>b</sup> Marshall, l. c.

<sup>c</sup> "G. Piso Monardis descriptioni circa lignum Sassafras non acquiescendum esse ait, siquidem affirmat Sassafras Floridæ lignum decorticatum vix ullius dignitatis esse, cum Brasiliense eximie dignitatis & virtutis habeatur, atque à cortice liberatum in aliquot annos immune servatur." Vide Raii Hist. p. 1569.

† This account differs from that given by Ray, who says, that — "Tho. Johnsonus in Gerardo suo emaculato: qui Sassafras arbusculæ à se visæ in horto D. Guliel. Coys Stratfordiæ propé Londinum ramulum describit & depingit, &c. Hist. l. c.

<sup>d</sup> "It is called cinnamon-wood on account of its smell, which made the Spaniards, when they conquered Florida, in 1538, under Ferdinand de Soto, hope to find that valuable spicery there, which grows only in Ceylon." Savary Dict. ii. 1487.

<sup>e</sup> "Ligni quoddam genus ex Florida, nunc recens in Hispaniam invehitur, cujus ante paucos annos, notitiam Gallus quidam mihi dedit, ejus facultates mirum in modum prædicans adversus varios morbos, ut Galli experti erant, ab incolis edocti.—Dicitur Indis Pavame, Gallis, nescio quam ad causam, Sassafras." Monard. Hist. ed anno 1569.

a penetrating

a penetrating pungent taste, and so ponderous as to sink in water. Rectified spirit extracts the whole taste and smell of Sassafras, and elevates nothing in evaporation; hence the spirituous extract proves the most elegant and efficacious preparation, as containing the whole virtue of the root." Sassafras, according to Bergius, is "fudorifera, diuretica, purificans," and useful in "rheumatism, cutaneous diseases, and ulcers." Lewis says that it is used as a mild corroborant, diaphoretic, and sweetener in scorbutic, venereal, cachectic, and catarrhal disorders.<sup>f</sup> Its medical character was formerly held in great estimation, and its sensible qualities, which are stronger than any of the other woods, may have probably contributed to establish the opinion so generally entertained of its utility in many inveterate diseases; for soon after its introduction into Europe, it was sold at a very high price,<sup>g</sup> and its virtues were extolled in publications professedly written on the subject.<sup>h</sup> It is now, however, thought to be of very little importance, and seldom employed, but in conjunction with other medicines of a more powerful nature. Dr. Cullen "found that a watery infusion of it taken *warm*, and pretty *largely*, was very effectual in promoting sweat; but (he adds) to what particular purpose this sweating was applicable, I have not been able to determine."<sup>i</sup> In some constitutions Sassafras, by its extreme fragrance, is said to produce head-ach; to deprive it of this effect the decoction ought to be employed.

Sassafras is an ingredient in the decoctum sarsaparillæ compositum, or decoctum lignorum; but the only officinal preparation of it is the essential oil, which may be given in the dose of two drops to ten. Watery infusions made both from the cortical and woody part, rasped or shaved, are commonly drunk as tea; but the spirituous tincture, or extract, which contains both the volatile and fixed parts of the medicine, appears to be preferable.

<sup>f</sup> Lewis M. M.

<sup>g</sup> Viz. 50 livres per pound.

<sup>h</sup> See Sassafrasologia, &c. published by J. R. Bremane, 1627. <sup>i</sup> Cullen's M. M. ii. 200.

## LAURUS NOBILIS.

## COMMON SWEET-BAY.

*SYNONYMA.* Laurus. *Pharm. Lond. & Edinb.* Dodon. 849. *Camer. Epit.* 60. *Gerard emac.* 1407. *J. Baub. Hist.* 1. 405. The Common Bay-tree. *Raii Hist.* 1688. Laurus vulgaris. *Baub. Pin.* 460. Laurus major five latifolia. *Park. Parad.* 598. Laurus nobilis. *Trew. nov. act. ph. med.* A. N. C. vol. 2. p. 381. Laurus foliis ovato-lanceolatis, ramis florigeris, folio brevioribus. *Hall. Stirp. Helv.* n. 1602. *Arbor Δαφνη Fructus Δαφνιδες Dioscor.*

*Class* Enneandria. *Ord.* Monogynia. *L. Gen. Plant.* 503.

*Eff. Gen. Ch.* Cal. 0. Cor. calycina, 6-partita. *Nectarium* glandulis 3 bifetis, germen cingentibus. *Filamenta* interiora glandulifera. *Drupa* 1-sperma.

*Sp. Ch.* L. foliis venosis lanceolatis perennantibus, floribus quadrifidis.

THE Bay-tree never rises to any considerable height, but usually sends off many radical shoots, which grow close and bushy:<sup>a</sup> the bark is smooth, and of a dark olive colour: the leaves are elliptical, pointed, smooth, veined, entire, often waved at the margin, of a shining green colour, and stand erect upon short channelled footstalks: the flowers come forth in April and May, and, like those of the Sassafras, are male and female upon different plants;\* they appear in clusters of three or four together, standing upon short peduncles at the axillæ of the leaves; the corolla divides into four oval leaves, which stand erect, and are of a yellowish white colour; the stamina vary in number, from seven to thirteen; there is no calyx, and the glands, &c. correspond with the generic description: the style of the

<sup>a</sup> Tum spissa ramis laurea fervidos  
Excludet ictus.—HOR. lib. ii. Ode xv.

\* We have figured the male plant.







female flowers is very short, and the germen becomes an oval berry, covered with a dark green rind, and separable into two lobes or cotyledons.

This tree is a native of Italy, and other southern parts of Europe, and the first account we have of its cultivation in England is given by Turner in 1562;<sup>b</sup> it is a handsome evergreen, and now very common in the shrubberies and gardens of this country. The leaves and berries possess the same medicinal qualities, both having a sweet fragrant smell, and an aromatic astringent taste.<sup>c</sup>—The berries are imported from the Streights, and are much stronger than the leaves. “In distillation with water the leaves yield a small quantity of very fragrant essential oil: with rectified spirit they afford a moderately warm pungent extract. The berries yield a larger quantity of essential oil: they discover likewise a degree of unctuousity in the mouth, give out to the press an almost insipid fluid oil, and on being boiled in water a thicker butyraceous one, of a yellowish green colour, impregnated with the flavour of the berry.”<sup>d</sup>

The *Laurus* of honorary memory,<sup>e</sup> the distinguished favourite

<sup>b</sup> Turn. Herb. part 2. fol. 32. in Hort. Kew. cit.    <sup>c</sup> Lewis M. M. 382.

<sup>d</sup> Their spicy warmth has recommended them for culinary purposes, and in this way they were much used by the Romans, “*Apud veteres Romanos inter cibi condimenta in culinis frequenter adhibebantur, ut testatur Apicius Cœlius.*” And the leaves both of this plant, and the common laurel, are frequently used in custards, &c. But the practice has by many been discontinued, since a recent and fatal proof of the poisonous qualities of the latter was made public. To such we may observe, that the common laurel, or *Prunus Lauro cerasus* of Linnæus, differs very materially from the plant here represented, both in its effects and in its botanical characters. The common sweet bay may be thus used not only with safety but with the advantage of assisting digestion: and it has even been thought to obviate the poisonous effects of the laurel: “*Aqua stillatitia Lauri, secundum Clar. Cantwell, antidotus est aquæ stillatitiæ Lauro cerasi.*” (Hall. l. c.) It may be remarked, however, that the deleterious part of the laurel is the essential oil which requires to be separated by distillation, in order to become an active poison.

<sup>e</sup> *Laurus* planta est, Apollini lucidissimo sacra: quin etiam a Jove colitur. It was not only generally worn as a triumphal crown, but, by the Emperor Tiberius, as a protection against thunder. “*Laurum fulmine non percute veteribus persuasum fuit.*” “*Eadem superstitione nititur observatio illa de crepitu quem folia & virgæ Lauri inter urendum edunt. Nam si crepuissent abundè ac sonatiùs, haud dubie portendi felicem eventum rebantur: quòd si tacita deflagrassent, tristem & inauspicatum.*” The *Laurus*, as well as the Olive, was considered as an emblem of peace, and called *Laurus pacifera*, “*si ejus rami prætendebantur inter armatos hostes, firmum quietis erat indicium.*” (*Matthiol*) Musæ in Laurinis montis Parnassi sylvis fidere finxerunt. Eadem coronabantur Poætæ. Necnon adhuc quibusdam in locis novi Medicinæ Doctores Lauro coronantur: inde fortasse Laureandi & Laureati dicuntur. (*Geoff.*)



of Apollo,<sup>f</sup> may be naturally supposed to have had no inconsiderable fame as a medicine;<sup>g</sup> but its pharmaceutical uses are so limited in the present practice, that this dignified plant is now rarely employed, except in the way of enema, or as an external application; thus, in the London pharmacopœia the leaves are directed in the decoctum pro fomento, and the berries in the emplastrum cumini. The berries however appear to possess some share of medicinal efficacy,<sup>h</sup> and if we do not allow them to be so extensively useful as represented by J. Bauhin, Tournefort, Geoffroy, and some others, yet we have no doubt of their virtus, stomachica, resolvens, pellens menses, urinam, sudorem, as stated by Bergius, who recommends them only in hysteria. They have been long thought to act with peculiar power upon the uterine system, and on this account we are cautioned against their use in pregnancy.<sup>i</sup> An infusion of the leaves is sometimes drunk as tea; and the essential oil of the berries may be given from one to five or six drops, on sugar, or dissolved by means of mucilages, or in spirit of wine.

<sup>f</sup> Cui Deus, At conjux quoniam mea non potes esse,  
Arbor eris certe, dixit, mea. Semper habebunt  
Te coma, te citharæ, te nostræ, Laure, pharetræ.  
Tu ducibus Latiis aderis, cum læta triumphum  
Vox canet; & longæ visent Capitolia pompæ.  
Postibus Augustis eadem fidissima custos  
Ante fores stabis; medianque tuebere quercum.  
Utque meum intonsis caput est juvenile capillis;  
Tu quoque perpetuos semper gere frondis honores.

OVID. Met. I. v. 557.

<sup>g</sup> “Laurus apud veteres medicos magnum habuit in medicina usum, & veluti panacea æstimata fuit.” Geoff.

<sup>h</sup> Haller says, “Calida & aromatica planta, semine potissimum, cujus vires a medicis nondum pro dignitate per experimenta exploratæ sunt.” l. c.

<sup>i</sup> Baccas Lauri interne sumptas, abhorret cl. Spielmann, ob vim prout dicit, infamem abortum promovendi, sanguinemque multum exæstuandi, etiam ubi pauca solum grana data fuerint. In praxi hodierna raro exhibentur baccæ; vidi tamen plures, etiam fœminas, quæ pulverem e feminibus Capfici & baccis Lauri, supra memoratum, innoxie sumperunt, sæpe per octiduum. Bergius M. M. 324.

SOLANUM DULCAMARA.





*Solanum Dulcamara*



# SOLANUM DULCAMARA. WOODY NIGHTSHADE.

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*SYNONYMA.* Dulcamara. *Pharm. Edin.* Solanum scandens feu Dulcamara. *Baub. Pin.* 176. Glycypicros, five Amara-dulcis. *J. Baub.* ii. 109. Amara Dulcis. *Gerard. emac.* 350. Solanum lignosum five Dulcamara. *Park. Theat.* 350. *Raii Synopsis*, 265. *Raii Hist.* 672. Solanum caule flexuoso frutescente, foliis supremis tripartitis & cordato-lanceolatis. *Hal. Stirp. Helv.* n. 575. *Hudson Flor. Ang.* p. 78. *Withering. Bot. Arrang.* 235. *Flor. Dan. tab.* 607. *Curtis Flor. Lond.* στεχυος *Theophrast.*

## Varietates,

α Solanum scandens feu Dulcamara. l. c.

β Solanum dulcamarum africanum foliis crassis hirsutis. *Hort. Elt.* Vide *Hort. Kew.*

*Class* Pentandria. *Ord.* Monogynia. *L. Gen. Plant.* 251.

*Eff. Gen. Ch.* Cor. rotata. *Anthæræ* subcoalitæ, apice poro gemino dehiscentes. *Bacca* 2-locularis.

*Sp. Ch.* S. caule inermi frutescente flexuoso, foliis superioribus hastatis, racemis cymosis.

THE stalk is slender, climbing, alternately branched, somewhat angular, brittle, hollow, and frequently rises above six feet in height: it is covered with bark of an ash-colour, and that of the young branches is of a purple hue: the leaves are long, oval, pointed, veined, and many of those near the top are halbert-shaped, but the lower leaves are entire, and of a deep green colour: the flowers hang in loose clusters or cymæ; the corolla is monopetalous, wheel-shaped, divided

divided into five pointed segments, which are bent backwards, of a purple colour, and the base of each marked with two round green spots: the tube is short, and the faux or mouth is of a shining black colour: the calyx is small, and divides into five blunt persistent segments, of a purple colour: the five filaments are short, black, and inserted in the tube of the corolla; the antheræ are yellow, erect, and unite at their points; the style is somewhat longer than the stamina, and terminated by a simple obtuse stigma; the germen is oval, and becomes a roundish bilocular berry, which finally acquires a red colour, and contains many flat yellowish seeds. It grows plentifully in hedges well supplied with water, and the flowers appear about the latter end of June.

The roots and stalks of this Nightshade, upon being chewed, first cause a sensation of bitterness, which is soon followed by a considerable degree of sweetness; and hence the plant obtained the name of Bittersweet. The berries have not yet been applied to medical use; they seem to act powerfully upon the primæ viæ, exciting violent vomiting and purging: thirty of them were given to a dog, which soon became mad, and died in the space of three hours, and upon opening his stomach, the berries were discovered to have undergone no change by the powers of digestion;<sup>a</sup> there can therefore be little doubt of the deleterious effects of these berries; and as they are very common in the hedges, and may be easily mistaken by children for red currants, which they somewhat resemble, this circumstance is the more worthy of notice. The stipites, or younger branches, are directed for use, in the Edinburgh Pharm. and they may be employed either fresh or dried, making a proportionate allowance in the dose of the latter for some diminution of its powers by drying. In autumn, when the leaves are fallen, the sensible qualities of the plant are said to be the strongest,<sup>b</sup> and on this account it should be gathered in autumn rather than in spring.

Dulcamara does not manifest those narcotic qualities, which are common to many of the nightshades; it is however very generally admitted to be a medicine of considerable efficacy. Murray says that

<sup>a</sup> Floyer Pharmac. p. 86.

<sup>b</sup> Colliguntur stipites vel primo vere vel autumni fine, foliis destituti, tumque et odor saporque insignior. Murray Ap. Med. vol. i. p. 424.

it promotes all the secretions:<sup>c</sup> Haller observes that it partakes of the milder powers of the Nightshade, joined to a resolvent and saponaceous quality;<sup>d</sup> and the opinion of Bergius seems to coincide with that of Murray: "*Virtus*: pellens urinam, sudorem, menses, lochia, sputa; mundificans."<sup>e</sup> The diseases in which we find it recommended by different authors are extremely various;<sup>f</sup> but Bergius confines its use to "*rheumatismus, retentio menfium & lochiorum.*" Dulcamara appears also, by the experiments of Razoux and others, to have been used with advantage in some obstinate cutaneous affections.<sup>g</sup> Dr. Cullen says, "We have employed only the stipites or slender twigs of this shrub; but as we have collected them they come out very unequal, some parcels of them being very mild and inert, and others of them considerably acrid. In the latter state we have employed a decoction of them in the cure of rheumatism, sometimes with advantage, but at other times without any effect. Though the Dulcamara is here inserted in the catalogue of diuretics, it has never appeared to us as powerful in this way; for in all the trials made here, it has hardly ever been observed to be in any measure diuretic."<sup>h</sup> This plant is generally given in decoction or infusion, and to prevent its exciting nausea, it is ordered to be diluted with milk, and to begin with small doses, as large doses have been found to produce very dangerous symptoms.<sup>i</sup> Razou directs the following: *Rx Stipitum Dulcam. rec. drac. fs. in aquæ font. unc. 16 coquatur ad unc. 8.* This was taken in the dose of

<sup>c</sup> Per omnia colatoria corporis efficaciam exercent. 1. c.

<sup>d</sup> Vis partim solanacea, mitis, partim resolvens, quasi saponacea. 1. c.

<sup>e</sup> Mat. Med. 131.

<sup>f</sup> See the instances adduced by Haller and Murray. 1. c. Of the chief of these we may mention Phthisis, Lues venerea, Peripneumonia notha, Scorbutus, Icterus, Asthma, &c. on the authority of Boerhaave, Sauvages, Sager, and others.

<sup>g</sup> Journ. de Medecine. t. 22. p. 236.

<sup>h</sup> Mat. Med. ii. 354.

<sup>i</sup> Vide Linnæus Diff. de Dulcamara, p. 9. Haen. rat. med. Tom. iv. p. 247. "Largior Dulcamaræ usus initio et antequam ventriculus illi assueverit, nauseam et vomitum excitat, quin convulsiones et deliria, et notante cl. Govan, protractus paralyfin linguæ." Vide Murray 1. c.



three or four drams, diluted with an equal quantity of milk every four hours.<sup>k</sup>

<sup>k</sup> Linnæus directs two drams or half an ounce of the dried stipites, to be infused half an hour in boiling water, and then to be boiled ten minutes; and of this decoction he gives two tea-cups full morning and evening. l. c.

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POLYGONUM BISTORTA.      GREATER BISTORT, Or,  
SNAKEWEED.

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*SYNONYMA.* Bistorta. *Pharm. Lond. & Edinb.* Bistorta major. *Gerard. emac.* 399. Bistorta major vulgaris. *Park. Theat.* 391. Bistorta major rugosioribus foliis. *J. Baub. iii.* 538. Bistorta radice minus intorta. *Baub. Pin.* 192. *Raii Synopsis*, 147. *Raii Hist.* 186. *spec.* 1. Polygonum radice lignosa contorta, spica ovata, foliorum petiolis alatis. *Hal. Stirp. Helv.* No. 1558. *Withering Bot. Arrang.* 406. *Flor. Dan.* 421. *Curtis Flor. Lond.*

*Class* Octandria. *Ord.* Trigynia. *L. Gen. Plant.* 495.

*Eff. Gen. Ch.* *Cor.* 5-partita, calycina. *Sem.* 1, angulatum.

*Sp. Ch.* P. caule simplicissimo monostachyo, foliis ovatis in petiolum decurrentibus.

THE root is about the thickness of a finger, perennial, crooked, rugose, of a firm texture, and of a reddish or flesh colour, covered with a brown rind, and furnished with numerous small fibres and creepers: the stalk is simple, bending, solid, round, smooth, swelled at the joints, enclosed by the sheaths of the stipulæ, and is a foot and a half or two feet in height; the radical leaves are ovalish, or rather heart-shaped, pointed, and stand upon long winged footstalks; the upper leaves embrace the stem, and are narrower and undulated. The flowers stand upon short footstalks, and terminate the stalk in  
an



*Polygonum Bistorta*





an oblong close spike; the corolla is small, of tubular appearance, and divided into five oval obtuse segments, of a reddish white colour, and at the base supplied with several nectarious glands; the bracteal, or floral leaves, are membranous, withered, and each encloses two flowers; the filaments are tapering, white, longer than the corolla, and the antheræ are purple; the styles are three, about the length of the stamina; the stigmata are small and round; the germen is triangular, of a red colour, and the seeds are brown and remarkably glossy.

Bistort <sup>a</sup> is a native of Britain;\* it grows in moist meadows,<sup>b</sup> and flowers in May and September. Every part of the plant manifests a degree of stipticity to the taste, and the root is esteemed to be one of the most powerful of the vegetable astringents. Lewis says, that this “astringent matter is totally dissolved both by water and rectified spirit; the root, after the action of a sufficient quantity of either menstruum, remaining insipid: on inspissating the tinctures, the water and spirit arise unflavoured, leaving extracts of intense stipticity.”<sup>c</sup>

The root of Bistort was formerly considered to be alexipharmic and sudorific; but its uses seem only to be derived from its styptic powers; it is therefore chiefly indicated in hæmorrhages and other immoderate fluxes. Dr. Cullen observes, that the Bistorta, “both by its sensible qualities, and by the colour it gives with green vitriol, and by the extracts it affords, seems to be one of the strongest of our vegetable astringents, and is justly commended for every virtue that has been ascribed to any other. As such we have frequently employed it, and particularly in intermittent fevers, and in larger doses than those commonly mentioned in Materia Medica writers. Both by itself, and along with gentian, we have given it to the quantity of three drams a day.”<sup>d</sup> The dose of the root in substance is from a scruple to a dram.

<sup>a</sup> Bistorta, *quasi* bis torta, twice twisted, or wreathen, is a modern name. Alston M. M. i. 399. “Radix est serpentis modo intorta.” Whence it was called Serpentaria, Colubrina, and Dracunculus. And it has been variously considered to be the Oxylapathum, Britannica, and Limonium of the ancients. Vide Bauh. Pin. 192. Matth. 946.

\* In the North of England this plant is known by the name of Easter-Giant, and the young leaves are eaten in herb pudding.

<sup>b</sup> It grows about *Battersea*, and by the side of *Bishop's Wood* near *Hampstead*. Curt. Flor. Lond.

<sup>c</sup> Mat. Med. 154.

<sup>d</sup> Mat. Med. ii. 40.

IMPERATORIA

## IMPERATORIA OSTRUTHIUM. COMMON MASTERWORT.

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*SYNONYMA.* Imperatoria. *Pharm. Edinb.* *J. Baub.* iii. 137. *Gerard emac.* 1001. *Hal. Stirp. Helv.* No. 805. Imperatoria major. *Baub. Pin.* 156. Imperatoria five Astrantia vulgaris. *Park. Theat.* 942. Common Masterwort, by some erroneously Pellitory of Spain. *Raii Hist.* 436. Magistrantia. *Camer. Epit.* 592. Imperatoria Ostruthium. *Witbering. Bot. Arrang.* *Lightfoot Flor. Scot.*

*Class* Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 356.

*Eff. Ch.* *Fructus* subrotundus, compressus, medio gibbus, margine cinctus. *Petala* inflexo-marginata.

Imperatoria *Ostruthium.* *L. Sp. Pl.* 371.

THIS is the only Imperatoria described by Linnæus. The root is perennial, large, fleshy, succulent, round, tapering, rough, articulated, externally brown, internally whitish, creeping, and sends off many lateral fibres: the stalk is thick, striated, round, jointed, and rises about two feet in height: the leaves are compound, and proceed alternately from long footstalks, which supply the stalk with a sheathy covering at each articulation; the simple leaves are ovato-elliptical, pointed, irregularly serrated, and placed in treble ternaries, and the terminal leaf is commonly cut into three lobes: the general umbels are large, flat, and terminal; the partial umbel convex and unequal; there is no general involucre; the partial involucre consists of one or two slender leaves, nearly of the length of the radii; each flower is composed of five oval petals, which are of equal size, white, notched, and having their points bent inwards; the five filaments are tapering, white, erect, and longer than the corolla; the antheræ are double; the germen is roundish, striated, truncated, above white, beneath

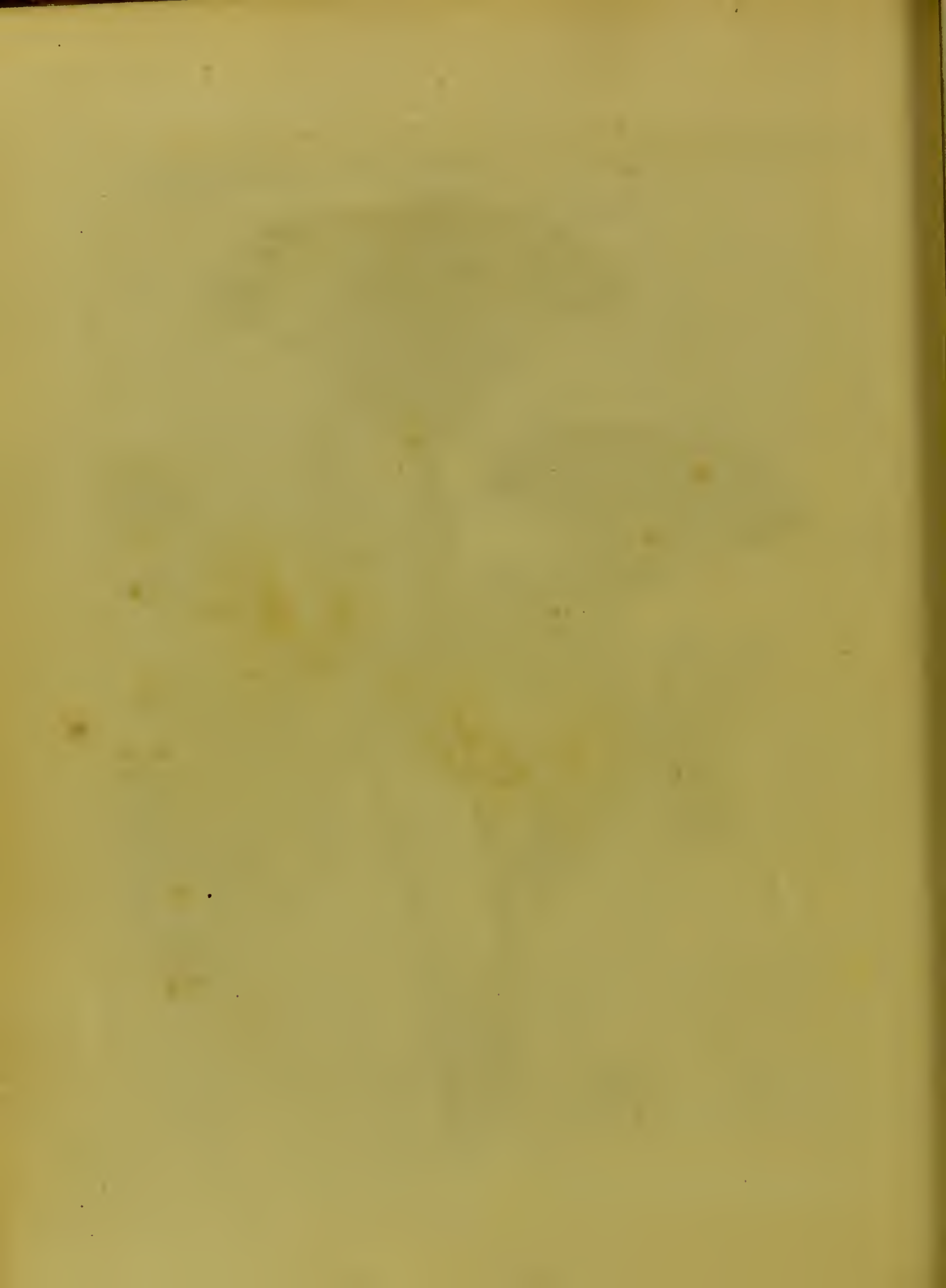




*Imperatoria Ostruthium*

Published by Dr. Woodville July 1 1790





beneath greenish: the two styles are tapering, spreading, and a little shorter than the stamina; the stigmata are simple and obtuse. The flowers appear in May and July.

Masterwort may be considered as a native of Scotland, Mr. Lightfoot having found it growing in several places on the banks of the Clyde. It is frequently cultivated in our gardens; but the root, which is the part directed for medical use, is greatly inferior to that produced in the South of Europe, especially in mountainous situations: hence the shops are commonly supplied with it from the Alps and Pyrenees.

This root has a fragrant smell, and a bitterish pungent taste, leaving a glowing warmth in the mouth for some time after it has been chewed. Its virtues are extracted both by watery and spirituous menstrua, but more completely by the latter.

This plant, as its name <sup>a</sup> imports, was formerly thought to be of singular efficacy, and was preferred to most of the other aromatics, for its alexipharmic and sudorific powers. <sup>\*</sup> In some diseases <sup>b</sup> it was employed with so much success as to be distinguished by the name of "divinum remedium."<sup>c</sup> At present, however, physicians consider this root merely as an aromatic, and it is of course superseded by many of that class of a superior character. Half a dram of the root in substance, and one dram of it in infusion, is the dose directed.

<sup>a</sup> "Imperatoria ob raras & præstantes facultates nominata fuit." Vide Bauh. Pin. f. c.

<sup>b</sup> The diseases, in which it has been chiefly recommended, are Hysteria, Hydrops, Colica, Paralysis, Vermes, Febres intermittentes. It has been also used as a sialagogue.

<sup>c</sup> C. Hoffman. Officin. L. 2. c. 116.

## FRAXINUS ORNUS.

## FLOWERING ASH.

*SYNONYMA.* Fraxinus tenuiore & minore folio. *Baub. Hist.* i. p. 177. Fraxinus humilior five altera Theophrasti, minore & tenuiore folio. *Baub. Pin. p.* 416. Fraxinus Ornus, foliolis ferratis, floribus corollatis. *Lin. Sp. Plant.* Mannifera arbor. Succus condensatus est Manna. *Pharm. Lond. & Edinb.*

*Glass Polygamia.* *Ord. Dioecia.* *Lin. Gen. Plant.* 1160.

*Eff. Gen. Ch. HERMAPHROD.* *Cal.* 0, f. 4-partitus. *Cor.* 0, f. 4-petala. *Stam.* 2. *Pist.* 1. *Sem.* 1, lanceolatum. *FEM. Pist.* 1, lanceolatum.

*Sp. Ch.* - F. foliis ovato-oblongis ferratis petiolatis, floribus corollatis. *Hort. Kew.*

THIS tree greatly resembles our common ash: it is lofty, much branched, and covered with a greyish bark. The young shoots produce the leaves, which are pinnated, opposite, and consist of several pair of pinnæ, or small leaves, terminated by an odd one, pointed, ferrated, veined, standing upon footstalks, of an oval or oblong shape, and bright green colour. The flowers grow in close thick branched spikes, and open in May and June. In the specimen we have figured, the flowers were all hermaphrodite; the corolla divided into four narrow whitish segments, somewhat longer than the stamina; the two filaments tapering, and crowned with large furrowed erect antheræ; the germen oval, and a little compressed; the style short and cylindrical; the capsule is long, flat, membranous, and contains a single flat pointed seed.

This tree is a native of the southern parts of Europe, particularly of Sicily and Calabria.<sup>a</sup> It was first introduced into England about

<sup>a</sup> The Ornus is observed by Dr. Cirillo to be very common on the famous mountain Garganus, so that the words of Horace may still apply;

aut Aquilonibus

Querceta Gargani laborant,  
Et foliis viduantur orni.

L. ii. Od. 9.







sixty years ago, by Dr. Uvedale;<sup>b</sup> and at present adorns many of the gardens of this country.

The Ornus is not the only species of ash which produces Manna; the *rotundifolia* and *excelsior*, especially in Sicily, also afford this drug, though less abundantly. Many other trees and shrubs have likewise been observed, in certain seasons and situations, to emit a sweet juice, which concretes on exposure to the air, and may be considered as of the manna kind.<sup>c</sup> In Sicily the three species of the *Fraxinus*, mentioned above, are regularly cultivated for the purpose of procuring Manna, and with this view are planted on the declivity of a hill, with an eastern aspect. After ten years growth, the trees first begin to yield the Manna, but they require to be much older before they afford it in any considerable quantity. Although the Manna exudes spontaneously upon the trees, yet in order to obtain it more copiously, incisions are made through the bark, by means of a sharp crooked instrument; and the season thought to be most favourable for instituting this process, is a little before the dog-days commence, when the weather is dry and serene. The incisions are first made in the lower part of the trunk, and repeated at the distance of an inch from the former wound, still extending the incisions upwards as far as the branches, and confining them to one side of the tree, the other side being reserved till the year following, when it undergoes the same treatment. On making these incisions, which

<sup>b</sup> Vide Hort. Kew.

<sup>c</sup> Dr. Cullen is certainly right in supposing "Manna a part of the sugar so universally present in vegetables, and which exudes on the surface of a great number of them;" the qualities of these exudations he thinks are "very little if at all different." The principal trees known to produce these mannas in different climates and seasons, are the larch, (*vide Murray Ap. Med. i. p. 17.*) the fir, (Iac. V. Engestrom in *Physiogr. Sällskapet's Handl. Vol. i. P. 3. p. 144.*) the orange, (De La Hire *Hist. de l'acad. d. sc. de Paris*, 1708.) the walnut, (*Hal. Stirp. Helv. N. 1624.*) the willow, (Mouffet in Du Hamel. *Physique des arbres, P. i. p. 152.*) the mulberry, (Micheli in Tragioni Tozzetti *Viaggi, Tom. 6. p. 424.*) oaks, situated between Merdin and Diarbekir (Niebuhr *Beschreib V. Arab. p. 145.* Otter, *Voyage en Turquie et en Perse, Vol. 2. p. 264.*) also oaks in Persia near Khounfar (Otter. l. c.) the al hagi Maurorum, or the hedyfarum alhagi of Linnæus; of this manna Dr. Fothergill presented a specimen to the Royal Society, which he considered as the Tereniabin of the Arabians, (*Phil. Transf. Vol. 43. p. 87.*) the *cistus ladaniferus* in some parts of Spain produces a manna, which, in its recent state, has no purgative quality, and is eaten by the shepherds: so that some fermentation seems necessary to give it a cathartic power, (*Vide Dillon's Travels through Spain, p. 127.*)

are



are of a longitudinal direction, about a span in length, and nearly two inches wide, a thick whitish juice immediately begins to flow, which gradually hardens on the bark, and in the course of eight days acquires the consistence and appearance in which the Manna is imported into Britain, when it is collected in baskets, and afterwards packed in large chests.† Sometimes the Manna flows in such abundance from the incisions, that it runs upon the ground, by which it becomes mixed with various impurities, unless prevented, which is commonly attempted, by interposing large concave leaves, stones, chips of wood, &c. The business of collecting Manna usually terminates at the end of September, when the rainy season sets in.<sup>d</sup>

From this account it is evident, that Manna is the *succus proprius* of the tree; any arguments therefore brought to combat the ancient opinion of its being a *mel aërium*, or honey-dew, are wholly unnecessary: that, with which the Israelites were so peculiarly favoured, could only have been produced through miraculous means, and is consequently out of the province of the *natural* historian. — Manna is generally distinguished into different kinds, viz. the Manna in

† La manne est le principal revenu de ce pays & de quelques autres qui en sont voisins. Il monte dans une bonne année a vingt-cinq mille Louis d'or. Houel Voyage Pittoresque, tom. 1. p. 53.

<sup>d</sup> This account is taken from Houel *Voyage Pittoresque*, and Sestini *Lettere della Sicilia*, and related by Murray: to which we shall subjoin Dr. Cirillo's account, communicated to the Royal Society. Vide Vol. 60. p. 233.

“ The manner, in which the manna is obtained from the Ornus, though very simple, has been yet very much misunderstood by all those who travelled in the kingdom of Naples; and among other things they seem to agree, that the best and purest manna is obtained from the leaves of the tree; but this, I believe, is an opinion taken from the doctrine of the antients, and received as an incontestible observation, without consulting nature. I never saw such a kind, and all those who are employed in the gathering of the manna, know of none that comes from the leaves. The manna is generally of two kinds; not on account of the intrinsic quality of them being different, but only because they are got in a different manner. In order to have the manna, those who have the management of the woods of the Orni in the month of July and August, when the weather is very dry and warm, make an oblong incision, and take off from the bark of the tree about three inches in length, and two in breadth; they leave the wound open, and by degrees the manna runs out, and is almost suddenly thickened to its proper consistence, and is found adhering to the bark of the tree. This manna, which is collected in baskets, and goes under the name of *manna grassa*, is put in a dry place, because moist and wet places will soon dissolve it again. This first kind is often in large irregular pieces of a brownish colour, and frequently is full of dust and other impurities. But when

in tear, the canulated and flaky Manna, and the common brown or fat Manna. All these varieties seem rather to depend upon their respective purity, and the circumstances in which they are obtained from the plant, than upon any essential difference of the drug: when the juice transudes from the tree very slowly, the Manna is always more dry, transparent, and pure, and consequently of more estimation; but when it flows very copiously it concretes into a coarse brown unctuous mass; hence we have a reason, why, by applying straws and other such substances to receive the flowing juice, the Manna becomes much improved: Houel, who tasted the manna when flowing from the tree, found it much bitterer than in its concrete state; this bitterness he attributes to the aqueous part, which is then very abundant, of course the manna is meliorated by all the circumstances which promote evaporation. According to Lewis, “ the best Manna is in oblong pieces, or flakes, moderately dry, friable, very light, of a whitish or pale yellow colour, and in some degree transparent: the inferior kinds are moist, unctuous, and brown. Manna liquifies in moist air, dissolves readily in water, and, by the assistance of heat, in rectified spirit. On inspissating the watery solution, the Manna is recovered of a much darker colour than at first. From the saturated spirituous solution, great part of it separates as the liquor cools, concreting into a flaky mass, of a snowy whiteness, and a very grateful sweetness.”

Manna is well known as a gentle purgative, so mild in its

when the people want to have a very fine manna, they apply to the incision of the bark, thin straw, or small bits of shrubs, so that the manna, in coming out, runs upon those bodies, and is collected in a sort of regular tubes, which give it the name of *manna in cannoli*, that is, manna in tubes: this second kind is more esteemed, and always preferred to the other, because it is free and clear. There is indeed a third kind of manna, which is not commonly to be met with, and which I have seen after I left Calabria: it is very white, like sugar; but as it is rather for curiosity than for use, I shall say no more of it. The two sorts of manna already mentioned undergo no kind of preparation whatsoever, before they are exported; sometimes they are finer, particularly the *manna grassa*, and sometimes very dirty and full of impurities; but the Neapolitans have no interest in adulterating the manna, because they always have a great deal more than what they generally export; and if manna is kept in the magazines, it receives often very great hurt by the Southern winds, so common in our part of the world. The changes of the weather produce a sudden alteration in the time that the manna is to be gathered; and, for this reason, when the summer is rainy, the manna is always very scarce and very bad.”

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operation, that it may be given with safety to children and pregnant women; in some constitutions however it produces troublesome flatulencies, and therefore requires the addition of a suitable aromatic, especially when given to an adult, where a large dose is necessary; it is therefore usually acuated by some other cathartic of a more powerful kind. The efficacy of Manna is said, by Vallisnieri, to be much promoted by cassia fistularis, a mixture of the two purging more than both of them separately; it is therefore very properly an ingredient in the electuarium e cassia.

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RUTA GRAVEOLENS.      COMMON RUE.

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*SYNONYMA.* Ruta. *Pharm. Lond. & Edinb.* Ruta hortensis. *Gerard. emac.* p. 1255. Ruta hortensis major. *Park. Theat.* p. 132. Ruta fativa vel hortensis. *Baub. Hist.* iii. p. 197. Ruta hortensis latifolia. *Baub. Pin.* p. 336. *Raii Hist.* p. 874. Ruta foliis duplicato-pinnatis, lobulis ovatis. *Hal. Stirp. Helv.* No. 1003. *Ρυτη seu Περυρριον Græc.*

*Class* Decandria. *Ord.* Monogynia. *L. Gen. Pl.* 523.

*Ess. Gen. Ch.* Cal. 5-partitus. *Petala* concava. *Receptac.* punctis melliferis decem cinctum. *Caps.* lobata. *Quinta pars numeri* in quibusdam excluditur.

*Sp. Ch.* R. foliis decompositis, floribus lateralibus quadrifidis.

THE root sends forth several shrubby stalks, which towards the bottom are strong, woody, and covered with rough, grey, striated bark; the upper or young branches are smooth, and of a pale green colour: the leaves are compound, consisting of double sets of irregular pinnæ, which are minutely notched or crenulated, of an obversely





*Ruta graveolens.*

Published by Dr Woodville, August 1. 1790.



obversely oval shape, and of a glaucous or bluish green colour: the flowers are numerous, and produced in a branched corymbus on subdividing peduncles: the calyx commonly divides into four and sometimes into five pointed leaves; the corolla consists of four and frequently of five petals, these are hollow or boat-shaped, dentated or fringed at the edges, and of a yellow colour; the ten filaments are yellow, tapering, spreading, and generally lodged in the cavity of the petals; the antheræ are yellow and quadrangular; the style is short; the stigma is simple; and the germen is large, oval, green, rough, and marked by four longitudinal furrows; the seeds are angular, rough, and of a blackish colour. This shrub is a native of the South of Europe, and flowers in June and September.

The first account we have of the cultivation of Rue in Britain, is given by Turner, who published his Herbal in 1562.<sup>a</sup> It is now extremely common in our gardens, where it retains its verdure the whole year. Rue has a strong ungrateful smell, and a bitter, hot, penetrating taste; the leaves are so acrid, that by much handling they are said to irritate and inflame the skin; and the plant, in its natural or uncultivated state, is reported to possess these sensible qualities still more powerfully. Both water and rectified spirit extract its virtues, but the latter more perfectly than the former.\*

Rue was much used by the ancients, who ascribed to it many virtues. Hippocrates commends it as a resolvent and diuretic, and attributes to it the power of resisting the action of contagion, and other kinds of poisons, and with this intention it was used by Mithridates:<sup>b</sup> this imaginary quality ‡ of the Ruta, is now however

\* Vide Hort. Kew.

\* From the experiments of Beaumé it appears, that the recent plant contains but a very small portion of essential oil: thus from 21 lb. of the leaves he scarcely obtained a dram, while 10 lb. of the seeds yielded two ounces. Berg. M. M. p. 350.

<sup>b</sup> In sanctuariis Mithridatis maximi regis devicti, Cn. Pompeius invenit, in peculiari commentario ipsius manu, compositionem antidoti, e duabus nucibus siccis, item ficis totidem & rutæ foliis viginti simul tritis, addito salis grano: & qui hoc jejunos sumat, nullum venenum nociturum illo die. Plin. L. 23. c. 8. p. 604.

‡ "One virtue particularly ascribed to Rue, that of resisting contagion, or of expelling it when taken in, I hold to be absolutely without foundation."—Cullen M. M. v. 2 p. 365.

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very little credited, though so highly extolled by Boerhaave.<sup>c</sup> According to Bergius it is “alexiteria, pellens, emmenagoga, fudorifera, rubifaciens.” It is doubtless a powerful stimulant, and may be considered, like other medicines of the fetid kind, to have attenuating, deobstruent, and antispasmodic powers,<sup>d</sup> and to be more peculiarly adapted to phlegmatic habits, or weak and hysterical constitutions, suffering from retarded or obstructed secretions. In the London Pharm. Ruta is directed in the form of an extract, and it is also an ingredient in the Pulvis e myrrha compositus. By some it is employed in the way of tea.

<sup>c</sup> The opinion formerly entertained of this plant, may be collected from the Schola Salernitana, in which its virtues are thus celebrated. c. 37. p. 427.

Nobilis est ruta, quia lumina reddit acuta;  
 Auxilio rutæ, vir lippe videbis acuta;  
 Cruda comesta recens, oculos caligine purgat.  
 Ruta viris minuit Venerem, mulieribus addit.  
 Ruta facit castum, dat lumen, & ingerit astum.  
 Cocta & facit ruta de publicibus loca tuta.

<sup>d</sup> “I have no doubt in asserting its antispasmodic powers.” Cullen M.M.v.2.p.365.

## SALVIA OFFICINALIS. GARDEN SAGE.

*SYNONYMA.* Salvia. *Pharm. Lond. & Edinb.* Salvia major. *Gerard Emac.* p. 764. *Dodon. Pempt.* p. 288. *Baub. Pin.* p. 237. Salvia major vulgaris. *Park. Theat.* p. 49. Salvia latifolia. *Baub. Hist.* iii. p. 304. *Raii Hist.* p. 509. ΣΦΟΚΕΛΣ *Theophrast. & ΕΛΕΛΙΣΦΑΚΟΝ* *Dioscoridis* existimatur esse.

Varietates,

<sup>α</sup> Salvia major. *C. Baub. Aliorumque*, s. c.

COMMON, or GREATER GARDEN SAGE.

<sup>β</sup> Salvia minor, aurita et non aurita. *Baub. Pin.* 237. Salvia minor, feu angustifolia, *Auctorum.*

SMALL SAGE, or SAGE OF VIRTUE. \*

\* Both these varieties are used medicinally; and the narrow leaved sage is by many preferred to the broad.

*Glass* Diandria.



*Salvia officinalis*

Published by D<sup>r</sup> Woodville August 1. 1790.





*Class* Diandria. *Ord.* Monogynia. *L. Gen. Plant.* 37.

*Eff. Gen. Ch.* *Cor.* inæqualis. *Filamenta* transverse pedicello affixa.

*Sp. Ch.* *S.* foliis lanceolato-ovatis integris crenulatis, floribus spicatis, calycibus acutis.

THE root is perennial, long, and fibrous; the stalk is shrubby, square, firm, divided into many branches, and rises above two feet in height: the leaves are oblong, rough, crenulated, or finely notched at the edges, generally of a reddish or purplish tinge, and stand in pairs upon long footstalks: the flowers appear in June, and terminate the branches in long spikes, they are of a blue colour, monopetalous, tubular, and separate at the extremity into two lips; the upper lip is entire and concave, the lower divides into three roundish lobes, of which the middle one is the largest: the calyx is tubular, large, reddish, striated, bilabiated, and cut into acute segments; the two filaments are short, and crossed transversely by two others affixed to them; the antheræ are large and yellow; the style is long, filiform, of a blue colour, and the stigma is bifid; the seeds are four, roundish, naked, and placed at the bottom of the calyx.

Sage is indigenous to the southern parts of Europe, and was cultivated in this country by Gerard, who first published a figure of this plant in the year 1597, and it is now a constant inhabitant of the kitchen garden: it has a fragrant strong smell, and a warm bitterish aromatic taste, like other plants containing an essential oil; it gives out its properties more perfectly to spirituous than to aqueous menstrua. In ancient times sage was celebrated as a remedy of great efficacy;<sup>a</sup> but, at present, few practitioners consider it as an article of much importance in the materia medica; and although frequently employed as a sudorific, it seems to have no advantage

<sup>a</sup> "Cur moriatur homo cui salvia crescit in horto?

Contra vim mortis non est medicamen in hortis."

— "Salvia salvatrix naturæ conciliatrix."

— "Salvia cum ruta faciunt tibi pocula tuta."

"Efficacia et nomen herbæ dedit (a salvando) et cumulum laudum attulit, in tremore artuum, paralyfi, obstructione menst ruorum, fluore albo, arthritide & rheumatismo, morbis contagiosis, apthis, ulceribus, aliisque multis morbis, quorum nomina colligere absque testium fide non interest."——*Murray Ap. Med.* vol. 2. p. 167.

over other plants, whose aromatic flavour renders the fluid in which they are infused more acceptable to the stomach; and by some it has been successfully used even for the purpose of restraining inordinate sweating.<sup>b</sup> As possessing a small share of aromatic and astringent power, it may prove a serviceable tonic in some cases of debility of the stomach and nervous system: the Chinese, who are said to have experienced the good effects of sage in this way, value it highly, and prefer it to their own tea. The power of this plant, in resisting the putrefaction of animal substances, has also been adduced in proof of its medicinal efficacy.<sup>c</sup>

<sup>b</sup> Infused in wine or spirit, Van Swieten found it remarkably efficacious in stopping night sweats. Vide *Comment.* tom. 2. p. 370.—Quarin remarks, that a strong infusion of sage in water was experienced to be equally successful. *Method. med. febr.* p. 37.—Baron Van Swieten also found it useful in restraining the improper continuing of a flow of milk from the breasts of women, after they had weaned their children. *Com.* tom. 4. p. 645.

<sup>c</sup> From the experiments of Etlinger, it is discovered to have a considerable share of antiseptic power. Vide *Comment. de Salvia*, p. 16.

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## IRIS FLORENTINA. FLORENTINE ORRIS, or IRIS.

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*SYNONYMA.* Iris florentina. *Pharm. Lond. & Edinb. Gerard. Emac.* p. 52. Iris alba florentina. *Baub. Pin.* p. 31. *Parkinson Perad.* p. 180. Iris flore albo. *J. Baub. Hist.* ii. 719. *Raii Hist.* p. 1180. *Spec.* 2. Iris barbata foliis ensiformibus glabris brevioribus, scapo subbifloro. *Thunb. Diff. de Iride.* n. 5. *Iris ἰαλλυγική, Dioscor. et Græc.*

*Class* Triandria. *Ord.* Monogynia. *L. Gen. Plant.* 59.

*Eff. Gen. Ch.* Cor. 6-petala, inæqualis, petalis alternis geniculato-patentibus. *Stigmata* petaliformia, cucullato-bilabiata. *Thunb. Diff. de Iride.*

*Cor.* 6-partita: *Petalis* alternis reflexis. *Stigmata* petaliformia. *Lin.*

*Sp. Ch.* I. corollis barbatis, caule foliis altiore subbifloro, floribus sessilibus.





*Iris florentina*

Published by D<sup>r</sup> Woodville August 1. 1790.





THE root is perennial, tuberous, ponderous, somewhat compressed, branched, fibrous, externally brown, internally of a yellowish white colour: the leaves are sword-shaped, radical, inserted in each other, pointed, shorter than the stem, and of a dull green colour: the stem is round, smooth, jointed, and about a foot in height: the flowers are large, upright, of a white colour, and often have a bluish tinge: the calyx is a spathe of two valves: the corolla divides into six segments or petals, of these, three stand erect, the other three, which are of an irregular oval shape, turn back, and at the base are painted with brown lines, and bearded with yellow hairs; the filaments are three, and crowned with long yellow antheræ; the style is short and simple; the stigma separates into three expanded segments, resembling petals, which arch over the stamina; the germen is long, of an obtusely triangular shape, and placed below the corolla; the capsule has three cavities, which contain numerous flat brown seeds.

This Iris is a native of Italy, and flowers in June: it was cultivated in England by Gerard in 1596, and is now constantly propagated by the florists; but the roots of the Orris produced in this country have neither the odour, nor the other qualities, of those of warmer climates, so that for medicinal use they are commonly imported from Leghorn.

This root, in its recent state, is extremely acrid, and when chewed excites a pungent heat in the mouth, which continues several hours: on being dried, this acrimony is almost wholly dissipated, the taste slightly bitter, and the smell agreeable, and approaching to that of violets. No essential oil has been hitherto obtained from this root, but spirituous tinctures of it contain more of its virtues than watery infusions. The fresh root is a powerful cathartic, and for this purpose its juice has been employed in the dose of a dram and upwards in dropfies. It is now chiefly used in its dried state, and ranked as a pectoral, or expectorant, and hence has a place in the *Trochisci amyli* of the London Pharm. We have however no evidence of its expectorant powers, and therefore must consider it as valuable only for the pleasantness of the perfume, and the flavour which it communicates.<sup>a</sup>

<sup>a</sup> "What this might do in its recent and acrid state, I cannot determine; but in the dried state, in which we commonly have it in our shops, we are persuaded of its being a very insignificant expectorant." Cullen M. M. v. 2. p. 459.

## IRIS PSEUDACORUS.      YELLOW WATER FLAG.

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*SYNONYMA.* Iris Palustris. *Pharm. Edin.* Iris palustris lutea. *Gerard Emac.* 50. Acorus adulterinus. *Baub. Pin.* p. 74. Acorus palustris, &c. *Park. Theat.* p. 1219. Yellow Water Flower-de-luce. *Raii Hist.* p. 1185. *Synop.* 374. Iris caule inflexo, foliis ensiformibus; petalis erectis minimis reflexis imberbibus. *Hal. Stirp. Helv.* n. 1260. Iris Pseud-Acorus. *Lightfoot Fl. Scot.* p. 86. *Withering Bot. Arrang.* p. 39. *Curt. Fl. Lond.*

*Class* Triandria. *Ord.* Monogynia. *L. Gen. Plant.* 59.

*Eff. Gen. Ch.* Cor. 6-petala, inæqualis; petalis geniculato-patentibus. *Stigmata* petaliformia, cucullato-bilabiata. *Thunb. Diff. de Iride.*

*Sp. Ch.* I. imberbis, foliis ensiformibus, petalis alternis, stigmatibus minoribus. *Thunb. l. c.*

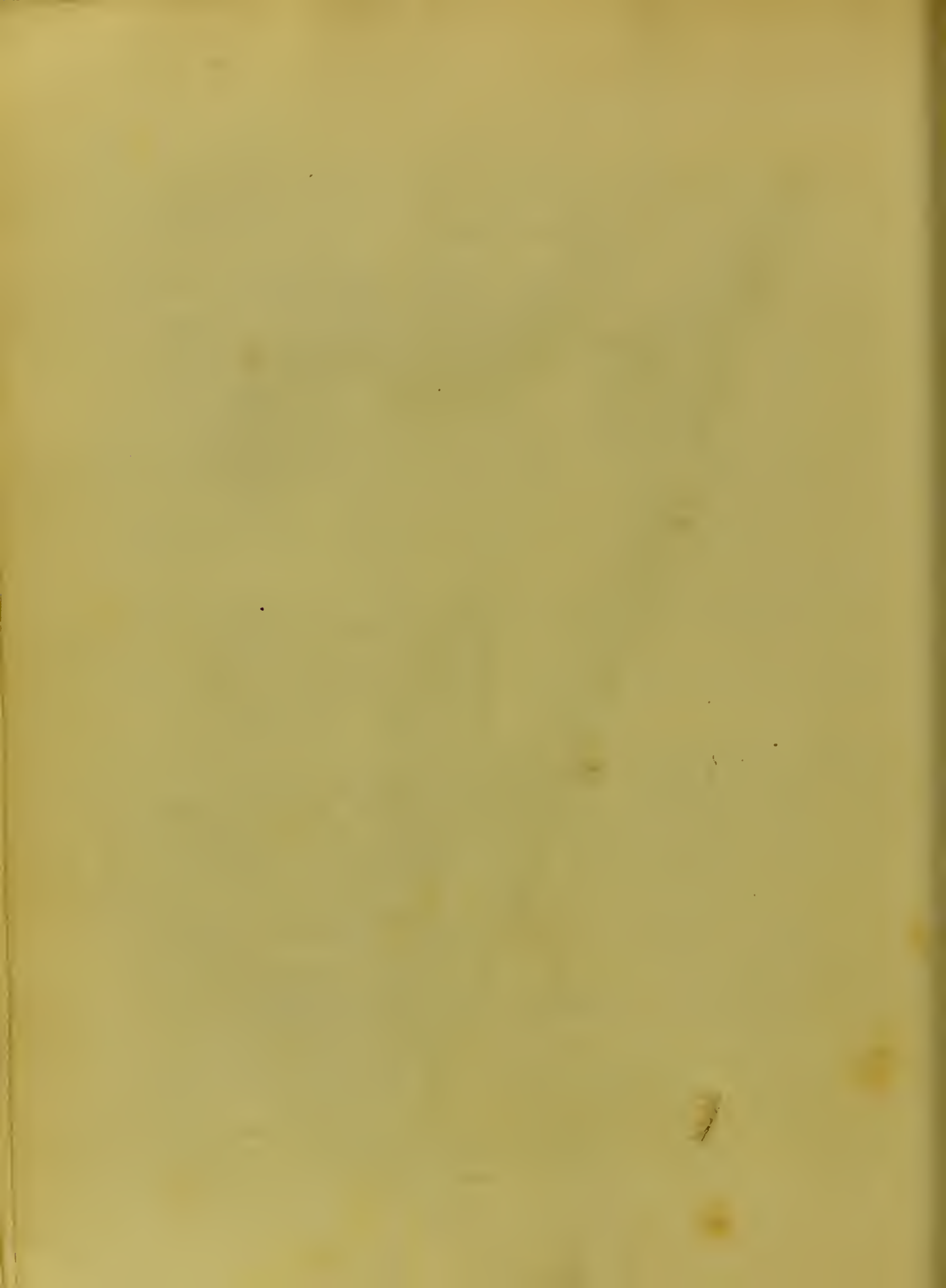
THE root is perennial, thicker than the thumb, of an irregular shape, horizontal, on the outside blackish, covered with rigid fibres, and puts forth many long whitish perpendicular slender roots; within it is spongy, and of a yellowish red colour; the leaves which grow from the root are upright, broad, sword-shaped, and at the bottom riding, or closely embracing, each other; those on the stalk are short, alternate, and sheathe the joints of the stem: the stalk is upright, round, smooth, alternately inclined from joint to joint: the flowers are large, showy, of a yellow colour, and stand upon short branches, which proceed from the joints of the stem: the corolla divides into six segments or petals, of these, the three inner ones are small and erect, the three outermost are large, of a roundish oval shape, turning back, and painted near the base with reddish lines: the calyx is a sheath, or spathe, of two, three, or four valves, according to the number of the flowers: the filaments are flat and tapering; the antheræ oblong,





*Iris Pseudacorus.*

*Published by Dr. Woodville Aug<sup>d</sup> 1 1790.*



oblong, yellowish at the edges, purplish, and bent down by the stigmata: the germen is triangular, and placed below the corolla; the style is short and slender; the stigma divides into three petalous expansions of a yellow colour, these are oblong, bent outwards, and irregularly ferrated at the extremity: the capsule is triangular, and divided into three cells, which contain numerous flat seeds of a yellow colour.

This plant is common in marshes, and on the banks of rivers, and is rendered very conspicuous by its large yellow flowers, which appear in the beginning of July. It formerly had a place in the London Pharm. under the name of *Gladeolus luteus*. The root is without smell, but has an acrid stiptic taste, and its juice on being snuffed up the nostrils, produces a burning heat in the nose and mouth, accompanied with a copious discharge from these organs: hence it is recommended both as an errhine and sialagogue.<sup>a</sup> This root is such a powerful astringent, that it has been used instead of galls in the making of ink,<sup>b</sup> and also for the purpose of dying black;<sup>c</sup> and from this quality it has been successfully employed as a medicine for the cure of diarrhæas:<sup>d</sup> When given with this intention, the root is to be well dried; for the fresh root and its juice are strongly cathartic, inasmuch that 80 drops of the latter produced repeated evacuations, after jalap, gamboge, &c. had failed, and by continuing its use in an increased dose, it cured an inveterate dropfy.<sup>e</sup> Hence Bergius says, "*VIRTUS. recent. hydragoga, purgans. siccant. adstringens.*" The expressed juice is likewise said to be an useful application to serpiginous eruptions and scrophulous tumours.<sup>f</sup>

<sup>a</sup> Vide Armstrong on the diseases of children, p. 146. Cullen. M. M. v. ii. p. 439.

<sup>b</sup> Phil. Trans. No. 117. p. 397.

<sup>c</sup> Vide Pennant's Tour in Scotland, 1772. p. 214. Lightfoot's Flor. Scot. v. 2. p. 86.

<sup>d</sup> Blair's Observations, &c. p. 78.

<sup>e</sup> — "By this time the strongest cathartics, such as Jalap, Gamboge, Mercury, &c. were quite ineffectual: whereupon Dr. Rutherford ordered 80 drops of the succus radicis, *Iridis palustris*, to be given every hour or two in a little syrup of buckthorn, which had very immediate effects, making him pass several Scots pints of water by stool that very night." Medical Essays, vol. 5. p. 94. — We may here remark, that this juice is very uncertain in its operation: that which is expressed from the old roots is the most active.

<sup>f</sup> Murray Ap. Med. vol. 5. p. 277. Lewis Mat. Med. 359.



CROTON CASCARILLA. CASCARILLA, Or,  
WILLOW-LEAVED CROTON.

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*SYNONYMA.* Cascarilla. *Pharm. Lond. & Edinb. olim*  
*Elutheria dicta.* Ricino affinis odorifera fruticosa major, rosmarini  
folio, fructu tricocco albido. *Sloane Fam. p. 133. tab. 86.* Croton  
(*Rosmarinifolium*) foliis linearilanceolatis, glabris, subtus argenteis,  
caule fruticoso, floribus spicatis terminalibus. *Mill. Dict.* Croton  
*lineare* foliis linearibus integerrimis obtusis subtus tomentosis, caule  
fruticoso. *Aiton. Hort. Kew. vol. iii. p. 374.* *Jacquin Stirp.*  
*Americ. 256. tab. 162. Am. Acad. 5. p. 411.*

*Class* Monoecia. *Ord.* Monadelphia. *L. Gen. Plant.* 1083.

*Eff. Gen. Ch.* *MASC.* Cal. cylindricus, 5-dentatus.

*Cor.* 5-petala. *Stam.* 10-15.

*FEM.* Cal. polyphyllus. *Cor.* 0. *Styli* 3, bifidi.

*Caps.* 3-locularis. *Sem.* 1.

*Sp. Ch.* C. fol. lanceolatis acutis integerrimis petiolatis subtus  
tomentosis, caule arboreo.

THIS shrub never rises to any considerable height; it sends off  
several round branches, and is covered with a brown bark, the external  
coat of which is white and rough: the leaves are long, narrow, entire,  
somewhat pointed, placed on short footstalks, above of a bright green  
colour, beneath downy, and of a silvery whiteness; the stipulæ, or  
scaly leaves, are narrow and lance-shaped; the flowers are produced  
about July, in a long terminal spike, and are both male and female:  
the male flowers are placed uppermost, and are furnished with a  
cylindrical calyx, cut at its extremity into five segments; the petals  
are five, small, oval, and of a white or yellowish colour; the stamina  
are



*Croton Lascaquilla*

*Published by D<sup>r</sup> Woodville Sept<sup>r</sup> 1 1790.*





are numerous, commonly from ten to fifteen. The *female flowers* have no corolla; the calyx consists of five or six oval leaves; the styles are three, forked; the capsule divides into three cells, each of which contains a single seed.

Writers on the *Materia Medica* have differed much respecting the plant which produces the officinal cortex cascarillæ;<sup>a</sup> and even now this point does not appear to be sufficiently ascertained: the London College has therefore cautiously avoided making any botanical reference to the plant which affords it. Linnæus, whose authority is certainly the best, in his first edition of the *Mat. Med.* considered the Cascarilla as a species of the *Clutia*; but in the second edition it is described as a *Croton*, and in his *Amanitates Academicæ* we are again presented with the *Clutia Cascarilla*.<sup>b</sup> What adds to this uncertainty is, that under both these genera it is referred to the same synonyma of Sloane and Browne; yet it is remarkable, that neither of these authors notices the medicinal uses of its bark,<sup>c</sup> although so long known as a medicine in great estimation in every part of Europe.

The plant,<sup>d</sup> from which the annexed figure of the Cascarilla is taken, was found to agree very accurately with the generic character of the *Croton*, as the plate itself must evince: we are therefore under no difficulty in assigning it to that genus. Whether the Cascarilla then is really a *Croton* or a *Clutia*, depends upon the fidelity and precision with which the synonyma have been respectively applied.\*

<sup>a</sup> This may be understood from the following names:

Cortex Thuris. *Dale Pharmac. p.* 346. Cortex Thuris nonnullis dictus, vel Thymiana. *Raii Hist.* 1841. Storax rubra officinarum. *Bauh. Pin.* 453. Thus Judæorum. *Park. Theat.* 1602. Schakarilla, Chakarilla. *Mout. Exot.* 8. Kina-kina Aromatica, Cascarilla, Cortex Eleterii five Scacarilla officinarum, Cortex peruvianus griseus five spurius. *Geoff. M. M.* <sup>b</sup> Vide vol. 5. p. 411.

<sup>c</sup> It is mentioned only as being used in medicated baths, and for fomentations. Vide Sloane l. c. The Ricinoides Elæagni folio of Catesby, is stated by him to be a good aromatic bitter, and, on being burnt, to yield a fine perfume. *Carolin.* vol. 2. p. 46. Walter, in his *Flor. Carolin.* does not mention the Cascarilla, though he discovered a new species of the *Croton*.

<sup>d</sup> This specimen was procured from the garden at Sion-House, the seat of his Grace the Duke of Northumberland.

\* Murray, Bergius, Spielman, the Edinburgh and most of the foreign Pharm. make it a *Croton*.

According

According to Lewis, the cortex cascarillæ is imported into Europe “ from the Bahama islands, particularly from that which is called Elatheria, in curled pieces, or rolled up into short quills about an inch in width ; covered on the outside with a rough whitish matter, and brownish on the inner side, exhibiting, when broken, a smooth close blackish brown surface. This bark, freed from the outer whitish coat, which is insipid and inodorous, has a light agreeable smell, and a moderately bitter taste, accompanied with a considerable aromatic warmth ; it is very inflammable, and yields, whilst burning, a remarkably fragrant smell, somewhat resembling that of musk. Its virtues are partially extracted by water, and totally by rectified spirit. Distilled with water it yields a greenish essential oil, of a very pungent taste, and of a fragrant penetrating smell, more grateful than that of the Cascarilla itself, and obtained in the proportion of one dram from sixteen ounces of the bark.”<sup>e</sup> The agreeable odour which this bark produces during its burning, induced many to smoke it mixed with tobacco,<sup>f</sup> before it became known as a medicine in Europe, which was not till towards the latter end of the last century ; when it was recommended by Professor Stiffer,<sup>g</sup> who found it to be a powerful diuretic and carminative, and who used it with success in calcalous, asthmatic, phthifical, scorbutic, and arthritic complaints. After this it was sold at Brunswick as a species of the Peruvian bark, and many physicians in Germany experienced its good effects in fevers of the intermittent, remittent, and putrid kind.<sup>h</sup> But while the facts establishing this febrifuge power of the Cascarilla are supported by authors of great respectability,<sup>i</sup> they are yet so little regarded, that this medicine is now very rarely prescribed in fevers, either in this country, or on the neighbouring continent. In intermittents however there can be no doubt but this bark, or indeed

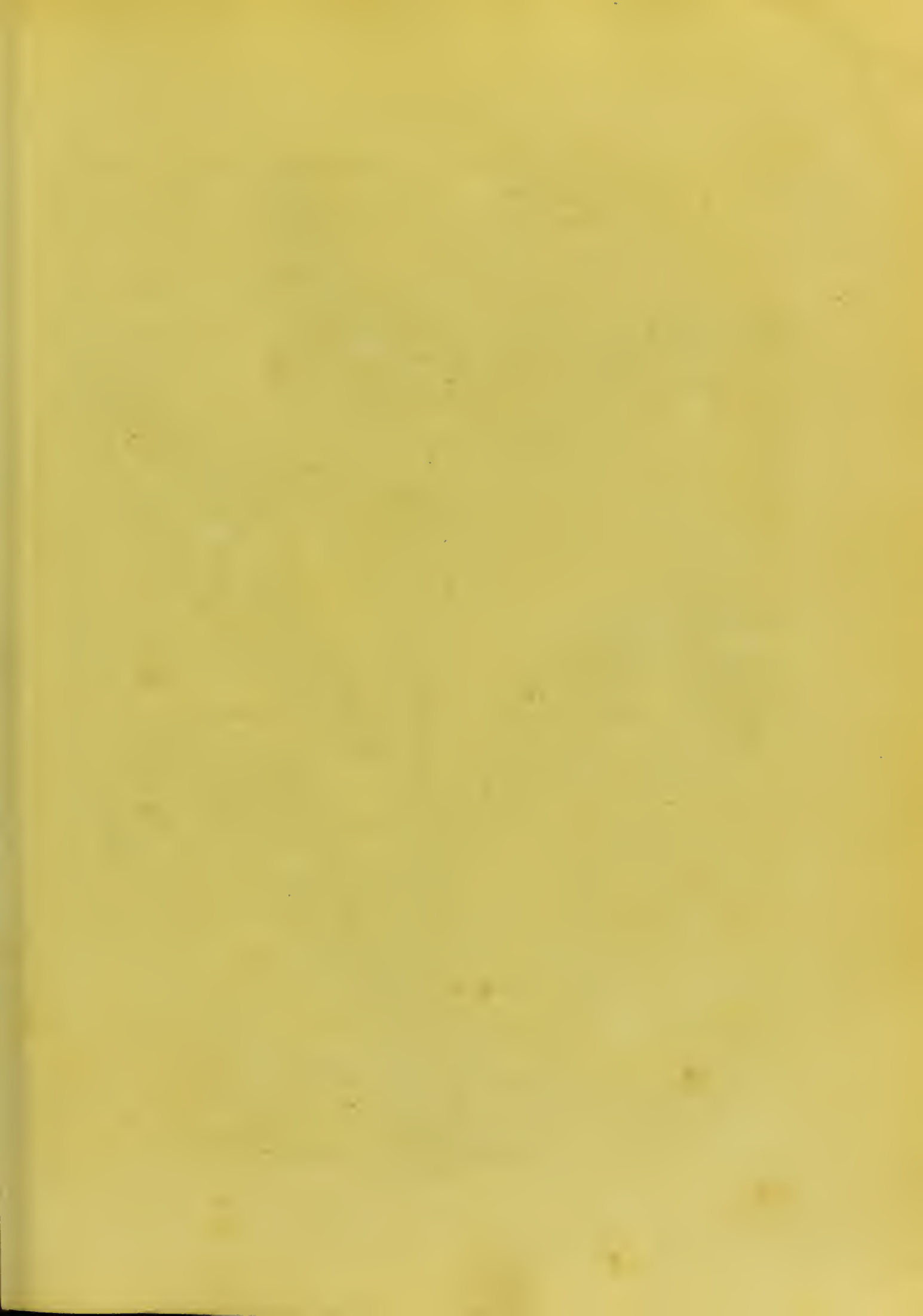
<sup>e</sup> The analysis, given by Böhmer, differs from this ; for which see *Diff. de cort. cascar.* p. 29.

<sup>f</sup> When used in a considerable quantity in this way, it is said to produce intoxication.

<sup>g</sup> Anno 1690. *Vide Act. laborat. chym. specim. cap. 9.*

<sup>h</sup> Ludovicus Apinus first employed it in fevers, and experienced great success by its use in an epidemic, which raged in the neighbourhood of Nuremburg, (by Lewis erroneously called Norway) during the years 1694 and 1695. *Feb. epidem. historica relatio.*

<sup>i</sup> Junker, Fagon, Werlhof, Santheffon, and others.







*Centaurea*

*Benedicta*

Published by D<sup>r</sup>. Woodville Sept. 1. 1790.

any other medicine possessing tonic and aromatic qualities, may frequently effect a cure. The German physicians have also given much credit to the Cascarella as an astringent, and recommended it in hæmorrhages, and various alvine fluxes, in which several instances of its utility are recorded.<sup>k</sup>

Dr. Cullen was in doubt whether to class this drug with the aromatics or with the tonics, but he determined upon the latter as the most proper; besides its being stomachic and corroborant, it is also reported to be diuretic: but proofs of its efficacy in particular diseases have not (as far as we know) been ascertained, nor even attempted by any adequate trials made in this country.<sup>l</sup> We shall not therefore follow a late ingenious author, in depreciating this medicine, from a mere speculation on its sensible qualities, but rather recommend it to the medical practitioner, as deserving a farther trial. It promises most advantage given in substance, the dose of which is from 15 grains to a dram.

<sup>k</sup> Degner de dysent. bil p. 164. Bergius Mat. Med. p. 766. Hist. de l'Acad. Royale des Sc. pour l'ann. 1719.

<sup>l</sup> What is said of it by Monro, (Milit. Hospit. p. 202.) and by Lind. (Diss. in hot climates) cannot be considered as exceptions.

## CENTAUREA BENEDICTA. BLESSED, Or HOLY THISTLE.

*SYNONYMA.* Carduus benedictus. *Pharm. Lond. & Edinb.*  
*Gerard Emac. p. 1171. J. Bauh. iii. 77. Park. Parad. p. 530.*  
*Raii Hist. 1303. Dodon Pempt. 725. Camer. Epit. 562. Cnicus*  
*sylvestris hirsutior sive Carduus benedictus. Bauh. Pin. 378.*

*Class Syngenesia. Ord. Polygamia frustranea. L. Gen. Plant. 984.*

*Eff. Gen. Ch. Recept. fetosum. Pappus simplex. Cor. radii infundibuliformes, longiores, irregulares.*

*Sp. Ch. C. calycibus duplicato-spinosis lanatis involucre, foliis semidecurrentibus denticulato-spinosis.*



THE root is annual, cylindrical, whitish, branched, and furnished with several slender fibres: the stalk is erect, roundish, channelled, rough, from one to two feet high, and often branched towards the top: the leaves are long, elliptical, rough, runcinated, or variously ferrated, and barbed with sharp points; above of a bright green colour, underneath whitish, and reticulated: the upper leaves are sessile, and on one side extend along the stalk, but the lower leaves stand upon footstalks: the flowers are enclosed by an involucre of ten leaves, of these the five external ones are the largest: the calyx is oval, imbricated, smooth, woolly, and consists of several squamous coverings, terminated by rigid, pinnated, spinous points: the flowers are compound, or composed of several yellow florets; those at the circumference want the parts necessary to fructification, but those at the centre are hermaphrodite, tubular, unequally divided at the limb, and dentated at their upper extremities: the filaments are five, tapering, white, downy, and inserted in the base of the corolla: the antheræ are cylindrical, tubulous, brownish, striated, and somewhat longer than the corolla: the style is filiform, and of the same length as the stamina: the stigma is yellow and cloven: the seeds are oblong, brown, striated, bent, and crowned with a hairy wing or feather, similar to that of the receptacle. It is a native of Spain and the Levant, and flowers in June and September.

The first account of the cultivation of this plant in England is given by Gerard, in 1597, and it is now usually cultivated with other exotic medicinal simples. It has an intensely bitter taste, accompanied with an unpleasant smell, which it loses upon being well dried. "Cold water, poured on the dry leaves, extracts in an hour or two a light grateful bitterness: by standing long upon the plant the liquor becomes disagreeable. Rectified spirit in a short time extracts the lighter bitter of the *Carduus*, but does not take up the nauseous so easily as water."<sup>a</sup> The watery extract, by keeping, produces a salt upon its surface, which resembles nitre.<sup>b</sup>

This plant obtained the appellation of *Benedictus*, from its being supposed to possess extraordinary medicinal virtues; for exclusive of those qualities which are usually attributed to bitters, it was thought

<sup>a</sup> Lewis Mat. Med. p. 195.

<sup>b</sup> Sal commune continere albi. Hist. de l'Acad. des Sc. de Berlin, 1747, p. 79.







*Momordica Elatium*

Published by D<sup>r</sup> Woodville Sept<sup>r</sup> 1. 1700.



to be a very powerful alexipharmic, and capable of curing the plague, and other fevers of the most malignant kind;<sup>c</sup> but its good effects in this way have now as little credit as those of its external use, by which cancers and carious bones are said to have been healed.<sup>d</sup> Bergius reports, that it is antacida, corroborans, stomachica, fudorifera, diuretica, eccoprotica; and that it is useful in Anorexia, Cachexia, Cephalalgia sympatica, Arthritis, Febres intermittentes. We might however, with equal propriety, attribute these virtues to many other simple bitters, from which the Carduus does not seem to be peculiarly different. In loss of appetite, where the stomach was injured by irregularities, the good effects of the Carduus have been frequently experienced.<sup>e</sup> Formerly it was a common practice to assist the operation of emetics, by drinking an infusion of the Carduus; but the flowers of chamomile have since been substituted for this purpose, and probably may be advantageously done for several others in which the Carduus is recommended. The seeds have also been employed in emulsion with the same intention as the leaves.

<sup>c</sup> Matthiol. in Dioscor. p. 597.

<sup>d</sup> J. Bauh. hist. tom. 3. p. 79. Arnold de Villa Nova *pract.* c. 44.

<sup>e</sup> Duncan Edinb. New Dispens.

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## MEMORDICA ELATERIUM. WILD, Or SQUIRTING CUCUMBER.

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*SYNONYMA.* Cucumis agrestis. *Pharm. Lond.* Cucumis asininus. *Gerard Emac.* p. 912. Cucumis sylvestris asininus dictus. *Bauh. Pin.* 314. Cucumis sylvestris sive asininus. *J. Bauh. i.* p. 248. *Raii Hist.* p. 647. Cucumis agrestis sive asininus. *Park. Theat.* 161. Σίκκος ἀγρίος *Græcorum.* Succus fructus inspissatus, Elaterium dictus.

*Class* Monoecia. *Ord.* Syngenesia. *Lin. Gen. Plant.* 1090.

*Eff. Gen. Ch.* *Masc.* Cal. 5-fidus. *Cor.* 5-partita. *Filamenta* 3.  
*FEM.* Cal. 5-fidus. *Cor.* 5-partita. *Stylus* 3-fidus.  
*Pomum* elastice diffiliens.

*Sp. Ch.* M. pomis hispida, cirrhis nullis.

THE



THE root is annual, long, thick, and of a fleshy substance; it sends forth several stems, which are round, branched, thick, rough, and trailing like the common cucumber, but without tendrils: the leaves are irregularly heart-shaped, slightly sinuated, veined, above of a deep green colour, underneath paler, rough, reticulated, and stand upon strong footstalks: the flowers proceed from the base of the footstalks of the leaves, and are both male and female on the same plant: the corolla is divided into five acute segments, reticulated with green veins, and placed above the germen: the calyx consists of five narrow acute segments: the stamina, in the male flowers, are three, short, tapering, two of which have cloven antheræ, the other has a simple one; in the female flowers the filaments are very short, and without antheræ: the style is short, trifid, and terminated by oblong stigmata, of a green colour: the fruit is large, oblong, hairy, divided into three cells, which contain many flat seeds: when ripe this fruit, on being touched, bursts open with great force, and throws its contents to a considerable distance; hence the name Squirting Cucumber. It is a native of the South of Europe, and flowers in June and July.

Since the time of Gerard, the wild cucumber has been regularly cultivated in this country for medical use: all the parts of the plant are bitter, and strongly purgative,\* but the dried juice, or fæculæ of the fruit, known in the shops by the name of Elaterium, is the only part now medicinally employed, and has been distinguished into white and black Elaterium: the first is prepared from the juice, which issues spontaneously, and the latter from that which is obtained by expression.<sup>a</sup> The method directed in the London Pharm. for preparing this medicine, is as follows:—“Slit ripe wild cucumbers, and pass the juice (very lightly pressed) through a very fine sieve into a glass vessel; then set it by for some hours, until the thicker part has subsided. Pour off the thinner part swimming at the top, and separate the rest by filtering; cover the thicker part which remains after filtration, with a linen cloth, and dry it with a gentle heat.”

\* Radicum vis cathartica major est quam foliorum, minor vero quam fructuum. *Geoff.*

<sup>a</sup> This drug was formerly prepared in several different ways, a circumstance necessary to be attended to in the history of its medicinal effects.





*Convallaria Polygonatum.*

Published by D<sup>r</sup> Woodville Sept<sup>r</sup> 1. 1790.



The sensible qualities of this inspissated juice are not remarkable either to the smell or to the taste; it is inflammable, and dissolves readily in watery or spirituous menstrua. Elaterium is a very powerful cathartic, and was frequently employed as such both by the Greek and Arabian physicians, and its use has since been much commended in hydropic cases, particularly by Pauli,<sup>b</sup> Sydenham,<sup>c</sup> and Lister.<sup>d</sup> It is undoubtedly the most violent purgative in the Materia Medica, and ought therefore to be administered with great caution, and only where the milder cathartics have proved ineffectual. The dose is from half a grain to three grains: the most prudent and effectual way in which dropsies are now treated by this remedy, is by repeating it at short intervals in small doses.

<sup>b</sup> Although S. Pauli employed this medicine with great success, yet from the extreme violence of its operation, he thinks it should not be used until the milder purgatives have failed.

<sup>c</sup> "Elaterium sive fæcula Cucumeris agrestis, potenter, in permodica quantitate vires suas exserit, in conturbanda alvo, & fæcibus, cum serosis & aquosis humoribus copiose egerendis," &c. Op. p. 488.

<sup>d</sup> We may also notice, that Lister observes that the patients, by taking this medicine, became very hot, and found unusual strong pulsations at the extremities of their fingers. De Hydropæ, in App. Op. Mortoni, p. 25.

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## CONVALLARIA POLYGONATUM. COMMON SOLOMON'S SEAL.

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*SYNONYMA.* Convallaria. *Pharm. Edinb.* Polygonatum latifolium flore majore odore. *Baub. Pin.* 303. Polygonatum floribus ex singularibus pediculis. *J. Baub.* iii. p. 529. Polygonatum majus flore majore. *Park. Theat.* p. 696. Sweet-smelling Solomon's Seal. *Gerard. Emac.* 904. *Raii Synopsis*, p. 263. *Spec.* 2. *Raii Histor.* p. 665. *Withering. Bot. Arrang.* p. 354. *Flor. Dan. Icon.* 337.

<sup>β</sup> Polygonatum Hellebori albi folio, caule purpurascente. *Raii Syn.* 263.

*Class* Hexandria, *Ord.* Monogynia. *L. Gen. Pl.* 425.

No. 9.

I i

*Eff. Gen. Ch.*

*Eff. Gen. Ch.* Cor. fexfida. *Bacca* maculofa 3-locularis.

*Sp. Ch.* C. foliis alternis amplexicaulibus, caule ancipiti, pedunculis axillaribus fubunifloris.

THE root is perennial, horizontal, white, fibrous, befet with knobs, and faid <sup>a</sup> to be marked with circular depreffions, refembling the impreffions of a feal; hence the name Solomon's Seal. The ftalk is inclined, angular, fmooth, and riles about a foot in height: the leaves are oval, pointed, ribbed, fmooth, above of a deep green colour, underneath glaucous, and at the bafe embrace the ftem: the flowers are long, bell-fhaped, white, or tinged with green; divided at the extremity into fix fhort fegments, and hang from the fame fide of the ftalk upon flender peduncles: the filaments are fix, tapering, fhort, and inferted in the corolla: the antheræ are oblong and erect: the ftyle is filiform, longer than the ftamina, and crowned with a blunt triangular ftigma: the germen is round, and when ripe becomes a black berry, divided into three cells, each containing a fingle round feed. It grows in the rocky and woody parts of England, and flowers in May and June.

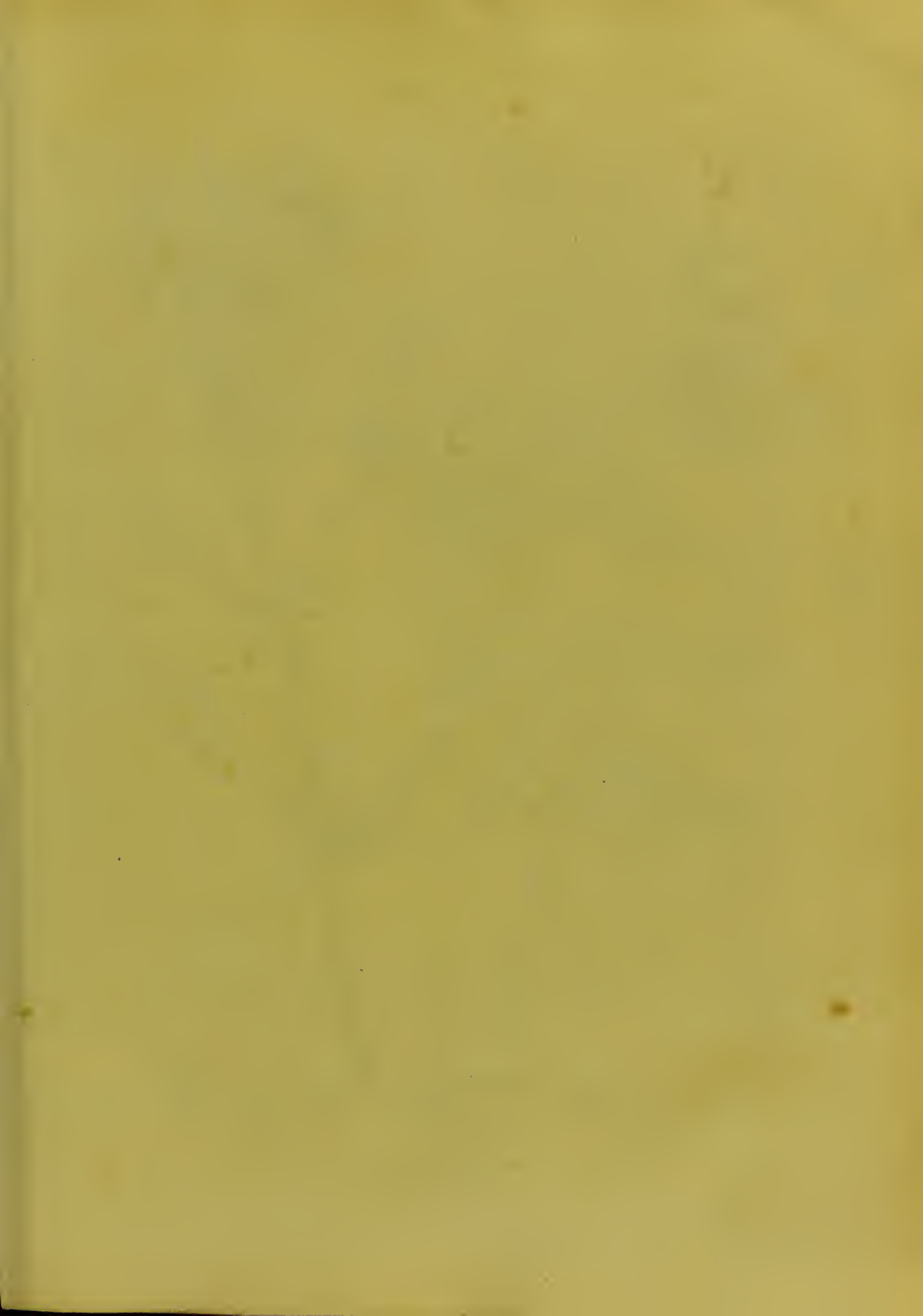
The root, which is the medicinal part of Solomon's Seal, is very generally, by writers on the Materia Medica, referred to the *Convallaria multiflora* of Linnæus, or the *Polygonatum latifolium vulgare* of C. Bauhin. It is of a mucilaginous <sup>b</sup> quality, and has long been commonly employed as a difcutient poultice to various kinds of tumours, but more particularly to bruifes, accompanied with extravafation of blood in the cellular membrane: <sup>c</sup> it is alfo recommended as a cosmetic; and in Galen's time was ufed by women to remove pimples and freckles of the fkin. Of its aftringent effects, when taken internally, there can be no well grounded expectation. The berries, flowers, and leaves, are extremely acrid, and are faid to be of a poifonous quality. <sup>d</sup>

<sup>a</sup> Thefe depreffions are more peculiarly characteriftic of the *Convallaria multiflora*.

<sup>b</sup> As a proof that thefe roots contain a confiderable proportion of farinaceous matter, Bergius fays, "Panem e radice recente, addita farina frumenti, annonæ caritate coxerunt ruftici noftates, qui fufcus fuit, & fubglutinofo fapore." M. M. 271.

<sup>c</sup> "Cataplasma e radice familiare remedium eft in fugillationibus, & in omni contufione, fanguinem grumofum efficaciter difcutiens." Rutt M. M. 403.

<sup>d</sup> Vide Haller Stirp. Helv. No. 1243. Geoff. M. M.







## CARUM CARUI.

## COMMON CARAWAY.

*SYNONYMA.* Caruon, *Pharm. Lond. & Edinb.* Carum feu Careum. *Gerard Emac. p.* 1034. Caros. *J. Baub. iii. p.* 69. Cuminum pratense, Carui officinarum. *Baub. Pin. p.* 158. Carum vulgare. *Park. Theat. p.* 910. *Camer. Epit. 516. Raii Hist. p.* 446. *Synop. p.* 213. *Morison Umbellifer. p.* 24. *Jacq. Flor. Aust. 393. Haller Stirp. Helv. N. 789. Withering. Bot. Arrang. p.* 312. *Kægos Dioscorid. Careum. Plinii.*

*Class* Pentandria. *Ord.* Digynia. *Lin. Gen. Plant. 365.*

*Eff. Gen. Ch.* *Fructus* ovato-oblongus, striatus. *Involucr.* 1-phyllum. *Petala* carinata, inflexo-emarginata.

THE root is biennial, long, thick, white, and has a sharp sweetish taste: \* the stalk is round, strong, channelled, branched, and rises to the height of two or three feet: the leaves are long, and subdivide into numerous pinnulæ or segments, which are narrow, pointed, of a deep green colour, and have a sweet taste: † the flowers grow in terminal umbels, generally consisting of ten radii, and furnished with both a general and a partial involucre, each of which, in the specimen we have figured, consisted of four or five narrow segments: the corolla is composed of five roundish blunt petals, which are white, and curled inwards at the extremities: the five filaments are slender, about the length of the petals, and crowned with small round antheræ: the two styles are short, capillary, and furnished with simple stigmata: the seeds are two, naked, brown, bent, striated, and of an oblong shape.

\* Parkinson says that these roots are better eating than parsneps.

† The leaves are said to afford an oil similar to that of the seeds. — Vide Lewis and others.

This



This plant produces its flowers in May and June. It is a native of Britain, and grows in meadows and low grounds; but the seeds of the cultivated plant are said to be larger, more oily, and of a more agreeable flavour than those of the wild plant, which are hot and acrid.

Caraway seeds are well known to have a pleasant spicy smell, and a warm aromatic taste, and on this account are used for various æconomical purposes.<sup>a</sup> “ They give out the whole of their virtues, by moderate digestion, to rectified spirit. Watery infusions of these seeds are stronger in smell than the spirituous tincture, but weaker in taste: after repeated infusion, in fresh portions of water, they still give a considerable taste to spirit. In distillation, or evaporation, water elevates all the aromatic part of the Caraways: the remaining extract is almost insipid, and thus discovers, that in Caraways there is less, than in most of the other warm seeds of European growth, of a bitterish or ungrateful matter joined to the aromatic. Along with the aqueous fluid there arises in distillation a very considerable quantity, about one ounce from thirty, of essential oil; in taste hotter and more pungent than those obtained from most of our other warm seeds.”<sup>b</sup>

The Caraway seeds are esteemed to be carminative, cordial, and stomachic, and recommended in dyspepsia, flatulencies, and other symptoms attending hysterical and hypochondriacal disorders: they are also reported to be diuretic, and to promote the secretion of milk. They formerly entered many of the compositions in the Pharmacopœias; but are now less frequently employed. An essential oil, and a distilled spirit, are directed to be prepared from them by the London College.

<sup>a</sup> Semina Carui satis communiter adhibentur ad condiendum panem. Rustici nostrates esunt juscum e pane feminibus Carui & cerevisia coctum. Distillatores feminibus Carui utuntur in rectificatione spiritus frumenti, ut ille acuatur oleo stellatio carui, utpote calefaciente, unde spiritus fortior apparet, &c.

<sup>b</sup> Beaume obtained from six pounds of unbruised caraway seeds four ounces of essential oil as colourless as water.







*Rheum palmatum*

Published by Dr. Woodville. Oct. 1. 1790.

## RHEUM PALMATUM. OFFICINAL RHUBARB.

*SYNONYMA.* Rhabarbarum. *Pharm. Lond. & Edin.* Rhabarbarum verum Med. *Hope, l. inf. cit.* Rheum palmatum; fol. palmatis acuminatis. *Lin. Spec. Plant. p. 281.* Conf. cel. Hope descriptionem in *Act. Philosoph. Londin. vol. 55. c. l.* Linnæi jun. in *Pl. rarior. hort. Upsal. fasc. 1. item cl.* Sandemani in *Diff. de Rheo palmato*; et Milleri in ejus *Illustr. Syst. Sex.*

*Class* Enneandria. *Ord.* Trigynia. *Lin. Gen. Plant. 506.*

*Eff. Gen. Ch.* Cal. 0. Cor. 6-fida, persistens. Sem. 1, triquetrum.

*Sp. Ch.* R. foliis palmatis acuminatis scabriusculis: sinu baseos dilatato, petiolis supra obsolete fulcatis margine rotundatis. *Aiton. Hort. Kew.*

THE root is perennial, thick, of an oval shape, and sends off long tapering branches; externally it is brown, and internally of a deep yellow colour: the stalk is erect, round, hollow, jointed, sheathed, slightly scored, branched towards the top, and rises to the height of six or eight feet: the radical leaves are numerous, large, rough, of a roundish figure, and deeply cut into lobes, and irregularly pointed segments, and stand upon long smooth round footstalks: the leaves which proceed from the stalk are placed at the joints, which they supply with membranous sheathes, and are successively smaller towards the upper part of the stem: the flowers terminate the branches, which they surround in numerous clusters, forming a kind of spike, and appear in April and May: the corolla divides into six obtuse segments, which are of a greenish white colour, and alternately smaller: the calyx is wanting: the filaments are nine, slender, about the length of the corolla, and furnished with oblong double antheræ: the style is very short, and terminated by three reflected stigmata: the germen becomes a triangular seed, with membranous margins of a reddish colour. It is a native of Tartary in Asia.

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It was not until the year 1732 that naturalists became acquainted with any plant which seemed to afford the *Rhabarbarum Officinale*,<sup>a</sup> when some plants, received from Russia by Jussieu at Paris, and Rand at Chelsea,<sup>b</sup> were said to supply this important desideratum, and as such were adopted by Linnæus, in his first edition of the *Species Plantarum*, under the name of *Rheum Rhabarbarum*. This however was not very generally received as the genuine Rhubarb plant; and with a view to ascertain this matter more completely, Kauw Boerhaave procured from a Tartarian rhubarb merchant the seeds of those plants, whose roots he annually sold, and which were admitted at Petersburg to be the true rhubarb: these seeds were soon propagated, and were discovered by De Gorter to produce two distinct species, viz. the *R. Rhabarbarum* of Linnæus, or as it has since been called *R. undulatum*, and another species, a specimen of which was presented to Linnæus, who declared it to be a new one, and was first mentioned in the second edition of the *Sp. Plantarum* in 1762, by the name of *R. palmatum*, (the plant we have figured). Previous to this time, De Gorter had repeatedly sent its seeds to Linnæus,<sup>c</sup> but the young plants which they produced constantly perished; at length he obtained the fresh root, which succeeded very well at Upsal, and afterwards enabled the younger Linnæus to describe this plant<sup>d</sup> ann. 1767. But two years antecedent to this, Dr. Hope's account of the *Rheum palmatum*, as it grew in the botanic garden near Edinburgh, had been read before the Royal Society at London; and of the great estimation in which this plant was held by him, we have the following proof: "From the perfect similarity of this root with the best foreign rhubarb in taste, smell, colour, and purgative qualities, we

<sup>a</sup> The *Rheum Rhaponticum* of Linnæus, or *Rhaponticum folio Lapathi majoris glabro* of C. Bauhin, is generally supposed to be the *Rhabarbarum* of the ancients; "Alpinus aliique putant esse Ρα vel Ρῥον veterum, cujus radicem usurparunt. (*Vide Dioscorid. Mat. Med. lib. 3. cap. 2.*) Ipse Alpinus sibi circa annum 1610, stirpem ex Thracia procuravit, et hæc Patavio Venetiam primo, dein inde in Angliam ad Parkinsonium (*Theat. Bot. p. 157.*) pervenit." Murray *Ap. Med. vol. 4. 354.* It is well known that the ancient rhubarb had not the purgative power of the modern.

<sup>b</sup> Seeds of this species were also sent to Miller from Boerhaave at Leyden, by the title of "*Rhabarbarum verum Chinesse.*" See his *Gard. Dict.*

<sup>c</sup> See the letters between De Gorter and Linnæus, by Nozeman, in *Verhandelinge van het Genootschap te Rotterdam, vol. 1. p. 455*, and cited by Murray.

<sup>d</sup> *Vide Plant. rarior. hort. Upsal. fasc. 1.*

cannot doubt of our being at last possessed of the plant which produces the true rhubarb, and may reasonably entertain the agreeable expectations of its proving a very important acquisition to Britain.”<sup>e</sup> But from the relation we have given, it appears that the seeds of both *R. undulatum* and *R. palmatum*, were transmitted to Peterborough, as those of the true Rhubarb: we are therefore to conclude, that the former species has an equal claim to this importance with the latter;† and from further enquiries made in Russia, there is the best authority for believing that the *R. compactum* also affords this very useful drug.<sup>f</sup> The seeds of the *Rheum Palmatum* were first introduced into Britain in 1762,\* by Dr. Mounsey, (who sent them from Russia) and were supposed to be a part of those already mentioned; and since their prosperous cultivation by the late Professor of Botany at Edinburgh, the propagation of this plant has been gradually extended to most of our English gardens, and with a degree of success which promises in time to supersede the importation of the foreign root.<sup>g</sup>

<sup>e</sup> See *Philosoph. Transf.* for the year 1765.

† Bergius says, “*Rheum palmatum* producit *Rhabarbarum* in officinis *Sibiricum* appellatum; certe e seminibus a Bucharis e montosis Tibeti in Russiam apportatis, & postea fatis hocce *Rheum palmatum* enatum est.” (Vide Pallas *Reise*, &c. vol. 3. p. 157) “*Rhabarbarum* vero *Chinense* ex alia specie *Rhei* desumptum esse videtur.” (Vide Georgi *Reise*, &c. vol. 1. p. 211.)

<sup>f</sup> The roots of the *Rheum Palmatum* were considered to be the best rhubarb, “donec viri celeberrimi, Pallas et Georgi, qui nuperrime in rem naturalem Russiæ itineribus suis inquisiverunt, scrupulos novos excitarent. Nam percontanti ill. Pallas Buchari, folia *Rhei* palmati sibi ignota declararunt, describentes contra ea folia veri *Rhabarbari* rotunda et in margine paucis modo incisionibus notata; unde concludit iste *Rheum compactum* potius fuisse intellectum. Huc pertinent supra ex cl. Georgi itinerario dicta (V. p. 360) de Cosacco quodam, qui *Rheum undulatum* pro vera specie significavit. Uterque etiam arbitratur, *Rheum undulatum* in montibus australioribus apertioribus et siccioribus, quales Tibetici sunt, præstantiorem posse radicem ferre quam montes frigidi et humidi Sibiriciæ.” *Murray l. c.* Pallas *Reise*, vol. 3. p. 156. Georgi *Reise*, vol. 1. p. 210. “The seeds of the *compactum* were sent to Miller “from Peterborough, for the true Tartarian rhubarb, and were gathered from the plants growing on the spot, where the rhubarb was taken up; and upon trial of the roots, they are found to be as good as the foreign rhubarb.” See his Dict. 6th edition.

\* In the Hort. Kew. this plant is said to have been first cultivated in England by Miller in 1768.

<sup>g</sup> The Society for Encouragement of Arts, Manufactures, and Commerce, has laudably contributed to this national object, of which their Transactions published bear sufficient evidence.



Two sorts of rhubarb roots are usually imported into this country for medical use, viz. The Chinese,† and the Turkey rhubarb;‡ the first is in oblong pieces, flattish on one side, and convex on the other; compact, hard, heavy, internally of a dull red colour, variegated with yellow and white, and when recently powdered appears yellow, but on being kept becomes gradually redder. The second is the most valuable, and is brought to us in roundish pieces, with a large hole through the middle of each; it is more soft and friable than the former sort, and exhibits, when broken, many streaks of a bright red colour. “ The marks of the goodness of rhubarb are, the liveliness of its colour when cut; its being firm and solid, but not flinty or hard; its being easily pulverable, and appearing when powdered of a fine bright yellow colour; its imparting to the spittle, on being chewed, a deep saffron tinge, and not proving slimy or mucilaginous in the mouth; its taste is subacid, bitterish, and somewhat styptic; the smell lightly aromatic.”

The purgative qualities of rhubarb are extracted more perfectly by water than by rectified spirit: the root remaining after the action of water is almost if not wholly inactive; whereas after repeated digestion in spirit, it proves still very considerably purgative. The virtue of the watery infusion, on being inspissated by a gentle heat, is so much diminished, that a dram of the extract is said to have scarcely any greater effect than a scruple of the root in substance;

† Colitur hoc a Chinesibus, præcipue in provincia Xensi sub nomine *Taihoang*. Bergius, M. M. p. 332.

‡ “ Olim, quum commercium in orientalibus regionibus per Natoliam fieret, Rhabarbarum ex portibus Turcicis ad Europæas transferebatur, unde nomen Rhabarbari Turcici.” Murray, l. c. Mr. Bell (in his *Travels from St. Petersburg to divers parts of Asia*) says, that the best rhubarb grows plentifully on a long chain of mountains in Tartary, which extend from Selin to the lake Koko-nor near Tibet. At a proper age the roots are taken up, which, according to Pallas, is in April or May; but in Bell’s account, this is said to be done in the autumn: they are then to be cleaned, the smaller branches cut off, and the larger roots divided into pieces of a proper size; after this they are perforated, and suspended to dry either upon the neighbouring trees, or in tents, or as some have reported, to the horns of sheep. The proper exsiccation of this root is certainly attended with considerable difficulty, and the cultivators of rhubarb in this country have not yet agreed in what mode this is to be best accomplished. The recent root in this process, according to the experiment of Sir William Fordyce, loses nearly nine-tenths of its weight.” See *Transf. of the Society for Encouragement of Arts, &c.*



the spirituous tincture loses less; half a dram of this extract proving moderately purgative. “ The qualities of this root are that of a gentle purgative, and so gentle that it is often inconvenient by reason of the bulk of the dose required, which in adults must be from half a dram to a dram. When given in a large dose, it will occasion some griping, as other purgatives do; but it is hardly ever heating to the system, or shews the other effects of the more drastic purgatives. The purgative quality is accompanied with a bitterness, which is often useful in restoring the tone of the stomach when it has been lost; and for the most part its bitterness makes it sit better on the stomach than many other purgatives do. Its operation joins well with that of neutral laxatives; and both together operate in a lesser dose than either of them would do singly.

“ Some degree of stipticity is always evident in this medicine, and as this quality acts when that of the purgative has ceased, so in cases of diarrhœa, when any evacuation is proper, rhubarb has been considered as the most proper means to be employed. I must however remark here, that in many cases of diarrhœa, no further evacuation than what is occasioned by the disease is necessary or proper.—The use of rhubarb in substance for keeping the belly regular, for which it is frequently employed, is by no means proper, as the astringent quality is ready to undo what the purgative had done; but I have found that the purpose mentioned may be obtained by it, if the rhubarb is chewed in the mouth, and no more is swallowed than what the saliva has dissolved. And I must remark in this way employed it is very useful to dyspeptic persons. Analagous to this, is the use of rhubarb in a solution, in which it appears to me, that the astringent quality is not so largely extracted as to operate so powerfully as when the rhubarb was employed in substance.”<sup>k</sup>

The officinal preparations of this drug are, a watery and a vinous infusion, a simple and a compound tincture. It is also an ingredient in different compositions, as the Elixir ex aloe et rheo, pilulæ stomachicæ, and some others.

<sup>k</sup> We have transcribed this account from Dr. Cullen, who has paid more than usual attention to this article. See *Mat. Med.* vol. 2. p. 529.

## GRATIOLA OFFICINALIS. HEDGE-HYSSOP.

*SYNONYMA.* Gratiola. *Pharm. Lond. & Edinb. Gerard. Emac. p. 581. Raii Hist. p. 1885. Dodon. Pempt. p. 358. Hal. Stirp. Helv. n. 329. Gratiola, Gratia Dei. Lob. Hist. p. 238. Chab. p. 475. Gratiola centauroides. Baub. Pin. p. 279. Gratiola vulgaris. Park. Theat. p. 220. Gratiola officinalis. Flor. Dan. t. 363.*

*Class* Diandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 29.

*Eff. Gen. Ch.* Cor. irregularis, resupinata. *Stamina* 2 sterilia. *Caps.* 2-locularis. *Cal.* 7-phyllus : 2 exterioribus patulis.

*Sp. Ch.* G. foliis lanceolatis ferratis, floribus pedunculatis.

THE root is perennial, cylindrical, white, jointed, and furnished with many slender fibres: the stalk is simple, erect, round, thick, and rises nearly a foot in height: the leaves are lance-shaped, long, pointed, ferrated towards the extremities, and stand in pairs, without footstalks: the flowers proceed from the base of the leaves, and appear in June and August; they are tubular, and divided at the limb into four obtuse irregular segments, of a pale purple colour: the tube is yellow, and intermixed with reddish streaks: the peduncles are slender, of a red colour, and support a single flower: the calyx consists of five or six elliptical pointed segments: the filaments are four, two of which only are furnished with antheræ: the style is tapering, straight, with a divided stigma: the germen becomes an oval pointed capsule, separated into two cells, which contain many small seeds. It is a native of the South of Europe, and grows usually in wet meadows.

Kostrzewski, who wrote professedly upon the virtues of this plant,<sup>a</sup> supposes Matthioli to be the first botanist by whom it is

<sup>a</sup> Diff. de Gratiola, Viennæ, 1775. Vide page 8.

mentioned;



*Gratiola officinalis*

Published by D<sup>r</sup> Woodville Oct<sup>r</sup> 1. 1790.





mentioned; and the first account of its cultivation in Britain is that given by Turner in 1568:<sup>b</sup> and it now has a place in most of our botanical gardens. It has a strong bitter nauseous taste, but little or no odour; and its virtues are extracted more perfectly by aqueous than by spirituous menstrua.

It has been observed, that *Gratiola* resembles *Digitalis* both in the shape of its flowers, and in its medicinal effects; and hence it has been called *Digitalis minima*. It is certainly a powerful and active cathartic, and operates with such violence upon the stomach, as generally to induce vomiting;<sup>c</sup> and on this account it is thought by Chomel to be a medicine adapted only to the more vigorous and robust constitutions.<sup>d</sup> Many others, however, recommend the *Gratiola* as a perfectly safe and useful purgative, declaring their repeated experience of its efficacy, without ever observing any bad consequence to follow its use. But as it is very uncertain in its effects, the employment of this medicine requires the precaution of a gradual increase of its dose. This plant has commonly been used in hydropical diseases; and in moderate doses it is said not only to act as a hydragogue, but also to manifest a diuretic character;<sup>e</sup> and instances of its good effects in ascites and anasarca, are related by many respectable practical writers.<sup>f</sup> Gesner and Bergius found a scruple of the powder a sufficient dose, as in this quantity it frequently excited nausea or vomiting; others have given it to half a dram, two scruples, a dram, and even more.<sup>g</sup>

<sup>b</sup> Turn. *Herb. cited in the Hort. Kew.*

<sup>c</sup> Vide Conr. Gesner. *Epist. Med. Lib. 3.* Dodon. *Pempt. p. 361.* Boerhaave *Hist. Pl. Hort. L. B.* Bergius *Mat. Med. p. 26.* These observations apply to this plant both in its recent and dried state.

<sup>d</sup> *Ufuell. t. 1. p. 48.* <sup>e</sup> *Succus nimirum expressus et inspissatus ad dosin 24 vel 30 granorum blande purgat absque vomitu, sed lotium efficaciter pellit. Extractum verò ex residuo post expressionem aqua erutum et amarius est, et eadem dosi violentius purgat Boulduc. Mem. de l'Acad. R. d. sc. 1705. p. 189. Vide Murray, Ap. Med. vol. 2. p. 200.*

<sup>f</sup> Heurn. *Prax. Med. p. 332.* Camerar. *Hort. Med. &c. p. 69.* Ettmul. *Oper. tom. 1, p. 716.* Heluich. *Misc. Nat. Cur. Dec. 3. A. 5. et 6 obs. 67. p. 133.* Joel. *Oper. Med. tom. 4. lib. 4.* Hartm. *Oper. Med. Chym. p. 60.*

<sup>g</sup> Chomel gave half a dram, Hermann two scruples. Many employed the fresh plant in decoction with the addition of cinnamon, mace, ginger, aniseeds, liquorice, &c. See Geoffroy (M. M.) and others.

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An extract of the root of this plant is said to be more efficacious than the plant itself, and exhibited in the dose of half a dram or a dram in dysenteries, produces the best effects.<sup>h</sup> We are likewise told by Kostrzewski,<sup>i</sup> that in the Hospitals at Vienna, three maniacal patients were perfectly recovered by its use; and in the most confirmed cases of lues venerea it effected a compleat cure: it usually acted by increasing the urinary, cutaneous, or salivary discharges.

<sup>h</sup> Boulduc l. c. Kramer *Tent. Bot.* p. 18. where it is said to have similar effects to those of ipecacuanha.

<sup>i</sup> *Diff. cit.* p. 64.

## SISYMBRIUM NASTURTIIUM. WATER-CRESSES.

*SYNONYMA.* Nasturtium aquaticum. *Pharm. Lond. & Edinb.*  
 Nasturtium aquaticum supinum. *Baub. Pin.* p. 105. Nasturtium  
 aquaticum, five Cratevæ Sium. *Gerard. Emac.* p. 257. Sifym-  
 brium Cardamine five N. aquaticum. *J. Baub. Hist.* vol. 2. p.  
 884. N. aquaticum vulgare. *Raii Hist.* 816. *Synop.* p. 300.  
*Park. Theat.* p. 1239. Sifymbrium foliis pinnatis, pinnis subro-  
 tundis, brevibus racemis. *Hal. Stirp. Helv.* n. 482. Sifymbrium  
 Nasturtium. *Withering. Bot. Arrang.* p. 690. *Flor. Dan.* t. 690.  
*Curt. Flor. Lond.* Καρδαμινη f. Σιον *Dioscorid.*

*Class* Tetradynamia. *Ord.* Siliquosa. *Lin. Gen. Plant.* 813.

*Eff. Gen. Ch.* Siliqua dehiscens valvulis rectiusculis. *Calyx* patens.  
*Corolla* patens.

*Sp. Ch.* S. filiquis declinatis, foliis pinnatis: foliolis subcordatis.

THE root is biennial, long, creeping, and beset with several close tufts of long slender fibres: the stalks are thick, branched, and frequently rise above a foot high: the leaves are pinnated, and consist of two or three pair of irregular oblong pinnæ, and terminated by an





*Sisymbrium Nasturtium*

*Published by D.<sup>r</sup> Woodville Oct<sup>r</sup> 1. 1790.*



an odd one, which is the largest: the flowers are disposed in short terminal spikes, and appear in June and July: the corolla consists of four petals, which at their extremities are roundish, spreading, and of a white colour: the calyx is of four oval leaflets, which commonly fall off by the expansion of the flower: the stamina are six, four long and two short, and furnished with simple antheræ: the style is short, with an obtuse stigma: the germen is long, slender, and becomes a crooked pod, which contains small round seeds. It is a native of Britain, and grows commonly in brooks and stagnant waters.

“ The leaves of the Water-creffes have a moderately pungent taste; emit a quick penetrating smell, like that of mustard-seed, but much weaker. Their pungent matter is taken up both by watery and spirituous menstrua, and accompanies the aqueous juice, which issues copiously upon expression: it is very volatile so as to arise,<sup>a</sup> in great part, in distillation, with rectified spirit, as well as with water, and almost totally to exhale in drying the leaves, or inspissating by the gentlest heat to the consistence of an extract, either the expressed juice, or the watery or spirituous tinctures. Both the inspissated juice, and the watery extract, discover to the taste a saline impregnation, and in keeping throw up crystalline efflorescences to the surface. On distilling considerable quantities of the herb with water, a small proportion of a subtile volatile very pungent oil is obtained.”<sup>b</sup>

Water-creffes obtain a place in the Materia Medica for their antiscorbutic qualities, which have been long very generally acknowledged by physicians. They are also supposed to purify the blood and humours, and to open visceral obstructions;<sup>c</sup> they are nearly allied to scurvy-grass, but are more mild and pleasant, and for this reason are frequently eaten as salad. In the pharmacopœias the juice of this plant is directed with that of scurvy-grass and Seville oranges; and Dr. Cullen has remarked, that the addition of acids renders the juices of the plantæ filiquosæ more certainly effectual, by determining them more powerfully to an aciescent fermentation.<sup>d</sup>

<sup>a</sup> This volatile matter has been erroneously attributed to an alkaline or alkalescent quality of the plant.

<sup>b</sup> Lewis Mat. Med.

<sup>c</sup> Hoffman and Haller thought highly of its powers in this way.

<sup>d</sup> Mat. Med.



POLYPODIUM FILIX MAS. MALE POLYPODY, Or,  
COMMON MALE FERN.

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*SYNONYMA.* Filix. *Pharm. Lond. & Edinb.* Filix non ramosa dentata. *Baub. Pin. p. 358.* Filix vulgò mas dicta, five non ramosa. *J. Baub. Hist. vol. iii. p. 737.* Filix mas non ramosa pinnulis latis densis minutim dentatis. *Gerard. Emac. p. 1129.* Filix mas vulgaris. *Park. Theat. p. 1036.* *Raii Hist. p. 143.* *Synop. p. 120.* Polypodium, pinnis pinnatis, obtusis, dentatis. *Hal. Stirp. Helv. n. 1701.* *Bolton. Filices. Brit. p. 44.* Creditur esse *Πτερίς Dioscorid. et Theophr.*

*Class* Cryptogamia. *Ord.* Filices. *Lin. Gen. Plant. 1179.*

*Eff. Gen. Ch. Fructific.* in punctis subrotundis sparsis per discum frondis.

*Sp. Ch.* P. frondibus bipinnatis: pinnis obtusis crenulatis, stipite paleaceo.

THE root is large, long, firm, and covered with thick brown scales, placed in an imbricated order, and furnished with many long black tough fibres: the general leaves are from one to four feet in length, the ribs of which when young are thickly beset with brown tough transparent scales: the figure of the whole leaf is lance-shaped, broadest in the middle, and gradually decreases to each extremity, terminating above in an acute point; the partial, or second leaves, are from fifteen to forty pairs, remote on the lower part, growing gradually nearer upwards, and running together at the top: the lobes are from seven to fifteen pairs, which are largest at the bottom, and regularly decrease towards the top, where they unite into a point; each lobe is of an oval shape, and a little indented at its upper extremity: the seed-vessels are placed in two rows on the back of the lobes, in number from three to six, of a kidney-shape, and covered with a pellicle; they are at first white, and afterwards change to a bluish



*Polypodium Filix mas*

Published by D<sup>r</sup> Woodville Oct. 1 1790.







bluish or ash-colour; when the seeds are ripe, the pellicle bursts, and after the discharge of the seeds the vessels become brown, and appear as if covered with dust. It is a native of Britain, and grows about the borders of woods near rivulets, and in stony rocky places.

The root of the male fern has lately been greatly celebrated for its effects upon the tape-worm, or *Tænia lata*, of Linnæus; and this vermifuge power of fern-root seems to have been known to the ancients;<sup>a</sup> and is since commended by different practical writers.<sup>b</sup> Yet notwithstanding the virtues of this root are thus recorded, its use was very generally neglected till some years ago. Madame Noufer, a surgeon's widow, in Switzerland, acquired great celebrity, by employing a secret remedy as a specific in the cure of the tape-worm. This secret was thought of such importance by some of the principal physicians in Paris,<sup>c</sup> who were deputed to make a complete trial of its efficacy, that it was purchased by the French king, and afterwards published by his order.<sup>d</sup> The method of cure has been stated as follows: After the patient has been prepared by an emollient clyster, and a supper of panada, with butter and salt, he is directed to take in the morning, while in bed, a dose of two or three drams of the powdered root of male fern. (The dose for infants is one dram.) The powder must be washed down with a draught of water, and two hours after a strong cathartic, composed of calomel and scammony, is to be given, proportioned to the strength of the patient. If this does not operate in due time, it is to be followed by a dose of purging salts, and if the worm be not expelled in a few hours, this process is to be repeated at proper intervals. Of the success of this, or a similar mode of treatment, in cases of *tænia*, there can be no doubt, as many proofs of it in this country afford sufficient testimony;<sup>e</sup> but whether the fern root or the strong cathartic is the principal agent in the

<sup>a</sup> *Dioscorid.* M. M. lib. 4. cap. 186. *Theophrast.* Hist. Plant. lib. 9. *Galen de Simp. Med.* lib. 8. *Pliny.* lib. 28. cap. 9.

<sup>b</sup> *F. Hoffman*, and others.

<sup>c</sup> Laffone, Macquer, De La Motte, Jussieu, Carhuri, and Cadet.

<sup>d</sup> *Précis du Traitement contre le Tænia ou Vers solitaires, pratiqué à Morat en Suisse, examiné et approuvé à Paris. Publié par ordre du Roi; à Paris, 1775.*

<sup>e</sup> See Dr. Simmons's "Account of the *Tænia*," &c.

destruction

destruction of the worm, may admit of a question, and the latter opinion we believe is the more generally adopted by physicians.<sup>f</sup> It appears, however, from some experiments made in Germany, that the tænia has in several instances been expelled by the repeated exhibition of the root, without the assistance of any purgative.<sup>g</sup>

<sup>f</sup> Dr. Cullen has published this opinion. See Mat. Med. art. Filix. See also Dr. Simmons's l. c. pref. p. 7.

<sup>g</sup> Vide C. C. Gmelin. *Consid. gen. filicum.* p. 34. Wendt. *Nachricht vom. clin. Inst zu Erlangen, Pensf.* 5. et 6. p. 44. 46.

## ANGELICA ARCHANGELICA. GARDEN ANGELICA.

*SYNONYMA.* Angelica. *Pharm. Lond. & Edinb.* Angelica fativa. *Baub. Pin.* p. 155. *J. Baub. Hist.* vol. iii. p. 140. *Gerard. Emac.* p. 999. *Park. Theat.* p. 939. *Raii Hist.* p. 434. *Synop.* p. 208. Angelica foliis duplicato-pinnatis, ovato-lanceolatis ferratis. *Hal. Stirp. Helv.* n. 807. *Flor. Dan. t.* 206.

*Class* Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 138.

*Eff. Gen. Ch.* *Fruetus* subrotundus, angulatus, solidus, *stylis* reflexis.  
*Corollæ* æquales: *petalis* incurvatis.

*Sp. Ch.* A. foliorum impari lobato.

THE root is biennial, long, thick, and furnished with numerous fibres: the stalk is thick, strong, jointed, channelled, round, of a purplish colour, rises to the height of six or eight feet, and sends off several branches, which terminate in large umbels: the leaves are pinnated, large, numerous, consisting of several pairs of oval, serrated, pointed, veined, irregular shaped lobes or pinnæ, terminated by an odd one: the flowers grow in large terminal umbels, which are





*Angelica Archangelica*

Engraved by D<sup>r</sup> Woodville Oct 1 1790.





are round, and composed of many radii: the corolla is small, white, and divided into five petals, which have their points turned inwards: the general involucre consists of three or five narrow pointed leaves, the partial involucre of five, and the calyx is cut into five minute segments; the five stamina are longer than the petals, spreading, and furnished with roundish antheræ: the germen is placed below the corolla, and supports two reflected styles, crowned with obtuse stigmata: the seeds are two, oval, flat on one side, convex on the other, and marked with three furrows.—It is a native of Lapland, <sup>a</sup> and flowers in June and August.

Angelica, as a native of a northern climate, seems to have been unknown to the ancients. It has been cultivated in Britain more than two centuries,<sup>b</sup> and its medical character <sup>c</sup> has rendered it of sufficient importance to be very generally propagated by the English gardener.—The roots of Angelica have a fragrant agreeable smell, and a bitterish pungent taste: on being chewed they are first sweetish, afterwards acrid, and leave a glowing heat in the mouth and fauces, which continues for some time. The stalk, leaves, and seeds, which are also directed in the Pharmacopœias, appear to possess the same qualities, though in an inferior degree. It is said that “on wounding the fresh root early in the spring, it yields from the inner part of the bark an unctuous yellowish odorous juice, which gently exsiccated retains its fragrance, and proves an elegant aromatic gummy resin. On cutting the dry root longitudinally, the resinous matter, in which the virtue and flavour of Angelica resides, appears concreted in little veins.”<sup>d</sup> Rectified spirit extracts the whole of the virtues of the root; water but very little; and in distillation with the latter, a small portion of very pungent essential oil may be obtained.

We are told by Linnæus, that the Laplanders entertain a high opinion of the utility of Angelica, and employ it both as food and as a medicine<sup>e</sup>; and since Aromatic plants are rarely inhabitants of the Polar regions, their partiality for Angelica is extremely natural: and

<sup>a</sup> “Ubique per omnes alpes Lapponiæ juxta rivulos vulgaris est.” Lin. Flor. Lap. p. 67.

<sup>b</sup> Cultivated in 1568. Turn. herb. part. 3. p. 5. Vide Hort. Kew.

<sup>c</sup> We may also add its use in confectionary.

<sup>d</sup> Lewis Mat. Med. p. 59.

<sup>e</sup> Flor. Lap. a. c.

from the enumeration of the virtues of this plant by Bergius, ' we should also suspect him of being influenced by the same physical cause. Angelica must however be allowed to possess aromatic, and what are called carminative, powers, and is used accordingly in the tinctura aromatica of the Edinb. Pharm. but as many other simples surpass it in these qualities, it is seldom employed in the present practice.

<sup>f</sup> *Virtus*: alexiteria, stomachica, sudorifera, carminativa. It may be remarked that he says nothing of its *usus*. Mat. Med. p. 205. It was formerly recommended in female diseases. Menstruis lochiisque obstructis, partu difficili, suffocatione uteri; contra venena, & febres malignas.

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## DORSTENIA CONTRAJERVA.      CONTRAYERVA.

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*SYNONYMA.* Contrayerva. *Pharm. Lond. & Edinb.* Dorstenia sphondylii folio, dentariæ radice. *Plum. ic. p. 109. tab. 119.* Jacquin coll. vol. iii. *Auctorum sequentium synonyma ad nostram plantam satis clarè referri nequeunt.* Drakena radix. *Clus. Exot. p. 83.* J. Bauh. *Hist. vol. ii. p. 740.* Gerard. *Emac. p. 1621.* Raii *Hist. p. 1339.* Contrayerva Hispanorum sive Drakena radix. *Park. Theat. p. 421.* Pro matre radice contrayervæ in medicina vulgo usitatæ, ex vivis speciminibus cl. Houstoun duas dorsteniæ species descripsit, 1° Dorstenia Dentariæ radice, sphondylii folio, placenta ovali, 2° Dorstenia Dentariæ radice, folio minus laciniato, placenta quadrangulari et undulata. (*Phil. Transf. vol. 37. p. 196 & 197*) Vel Dorstenia Drakena, et D. Houstoni. *Lin. Syst. Veg.*

*Class* Tetrandria. *Ord.* Monogynia. *Lin. Gen. Plant. 158.*

*Eff. Gen. Ch.* Receptac. commune 1-phyllum, carnosum, in quo femina nidulantur.

*Sp. Ch.* D. scapis radicatis, fol. pinnatifido-palmatis ferratis, receptaculis quadrangulis.

THE





*Dorstenia Contrajerva*

Published by D<sup>r</sup>. Woodville Nov<sup>r</sup> 1. 1790.



THE root is perennial, tapering, unequal, compact, rugose, externally brown, internally whitish, and furnished with numerous fibres: the leaves are various, of an irregular shape, lobed, ferrated, or rather dentated, pointed, veined, and placed upon long radical footstalks, which are winged towards the leaves: the scapi, or flower-stems, are round, rough, simple, rise several inches in height, and each supports an irregular quadrangular receptacle, which contains the necessary parts of fructification: the flowers on examination were discovered to be distinctly male and female, immersed in the common receptacle, and occupying the whole of its disc; the former consisted but of two slender short filaments, with yellow antheræ;† the latter of a roundish germen, supporting a simple style, terminated by an obtuse stigma: the capsule, when ripe, possesses an elastic power, by which the seed is thrown out with considerable force.<sup>a</sup>—It is a native of South America and some of the West India islands.‡

This plant is extremely scarce in Europe: the annexed figure of it was taken from a plant now in the Royal garden at Kew, where it was lately introduced, and is, we believe, the first of this kind that ever grew in England.<sup>b</sup> It does not sufficiently appear from what authority Linnæus gives the *Dorstenia Contrajerva*. The London College has however adopted it in the list of the *Mat. Med.* and in compliance with this we have figured the plant; at the same time we must acknowledge, that, upon the faith of Dr. Houston, who examined the *Contrajerva* plants in their native soil,<sup>c</sup> we should otherwise have had no doubt in referring the officinal *radix contrayervæ* to the species he has described, as has been done by Bergius<sup>d</sup> and Murray.<sup>e</sup> But as Houston has observed, that the roots of different species of *Dorstenia* are promiscuously gathered and exported for those of the *Contrajerva*; and as all the species bear a great resemblance to each

† This plant cannot therefore be properly said to belong to the class *tetrandria*.

<sup>a</sup> Vide Jacquin. l. c.

‡ Jacquin found it growing on the island of Martinico. Vide l. c.

<sup>b</sup> We do not find any species of the *Dorstenia* mentioned in the *Hort. Kew.* lately published.

<sup>c</sup> The first species on the high ground near Old Vera Cruz; and the second on the high rocky ground about Campechy in the year 1730. *Phil. Transf.* vol. 37. p. 197.

<sup>d</sup> *Mat. Med.* p. 73.

<sup>e</sup> *App. Med.* vol. 4. p. 572.

other,



other, we conceive the further discussion of this subject to be of no material consequence. Nich. Monardus,<sup>f</sup> almost two centuries ago, first makes mention of the plant called Contrayerva; and as this name is of Spanish origin, signifying an antidote to poison, it might apply to any other plant supposed to possess this power. We are told by Clusius, that he received from Sir Francis Drake some roots which were brought from Peru, where they were highly valued, and reported to counteract the effects of every kind of poison, of which the leaves of the same plant were said to be one. This root, in compliment to the circumnavigator, he named *Drakena radix*, and is generally thought by botanists to be that of Contrayerva. The generic name, *Dorstenia*, was first used by Plumier,<sup>g</sup> and afterwards by Linnaeus, who makes four species of this genus.

The root of Contrayerva has a peculiar kind of aromatic smell, and a light astringent warm bitterish taste, and on being long chewed it discovers somewhat of a sweetish sharpness. According to Lewis, "Contrayerva root gives out its virtue, by the assistance of heat, both to water and rectified spirit, and tinges the former of a dark brownish red, the latter of a brighter reddish colour: the watery decoction is very mucilaginous, so as not to pass through a filter."<sup>h</sup>

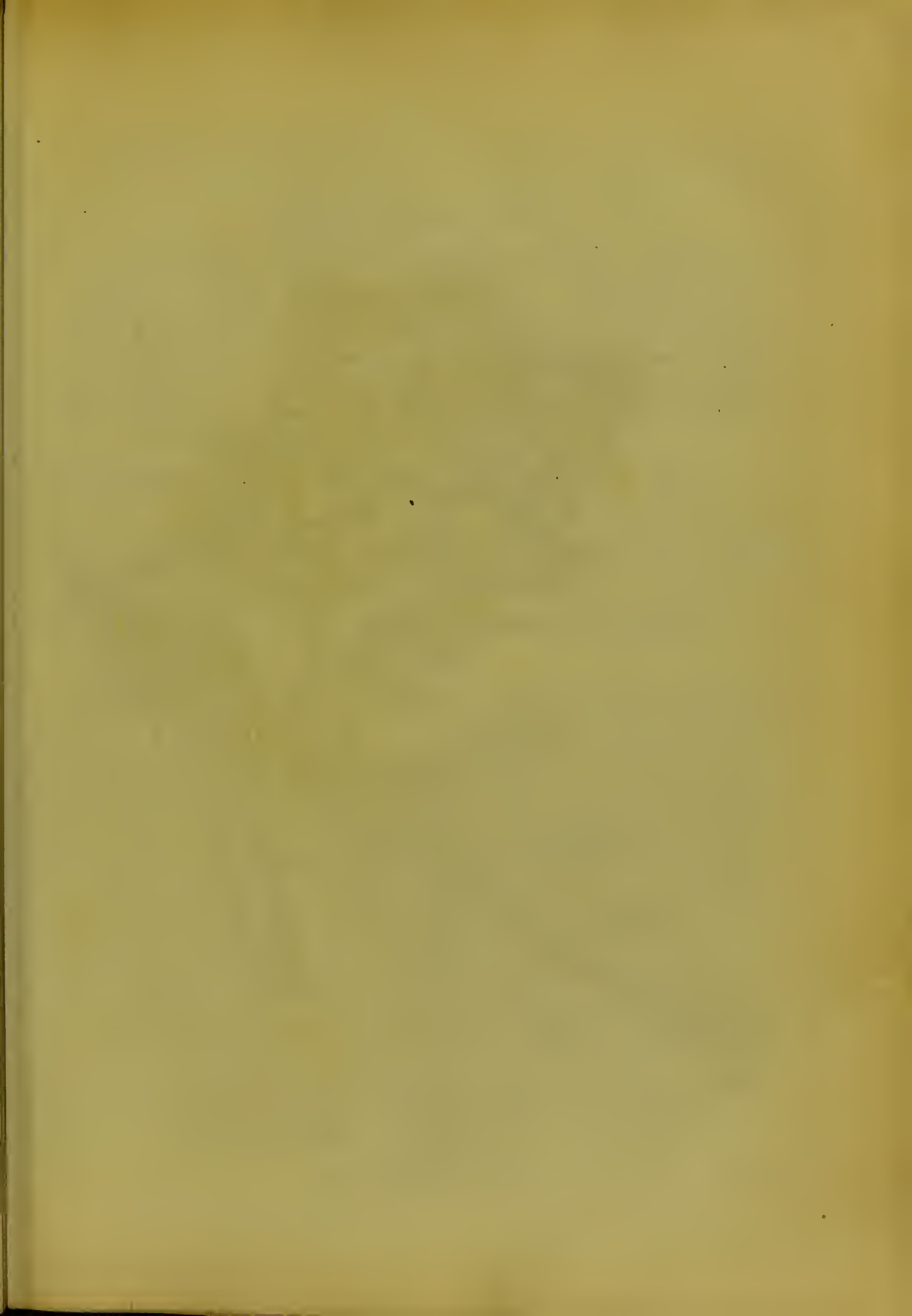
The antipoisonous virtues formerly attributed to this root, have been long very justly exploded as entirely chimerical, so that it is now merely employed as a diaphoretic of a moderately stimulant kind, being possessed of less pungency than any other of those medicines usually denominated alexipharmic. Putrid and nervous fevers are the diseases in which Contrayerva is chiefly used, conformably to the practice of Huxham and Pringle, whose works are well known to all our medical readers.

<sup>f</sup> Vide Clusius *Exot.* p. 311.

<sup>g</sup> *Nov. gen. plant.*

<sup>h</sup> Lewis *Mat. Med.*

HYOSCYAMUS NIGER.





*Hyoscyamus niger*

Enligned by D<sup>r</sup> Woodville Nov. 1. 1790.



## HYOSCYAMUS NIGER.

## BLACK HENBANE.

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*SYNONYMA.* Hyoscyamus. *Pharm. Edinb.* Hyoscyamus vulgaris et niger. *Baub. Pin.* p. 169. Hyoscyamus niger. *Gerard Emac.* p. 353. Hyoscyamus vulgaris. *J. Baub.* iii. 627. *Raii Hist.* p. 711. *Synop.* p. 274. *Park. Theat.* p. 362. Hyoscyamus. *Hal. Stirp. Helv.* n. 580. *Stoerck Libel. de Stramonio,* &c. *Withering. Bot. Arrang.* p. 231.

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 247.

*Eff. Gen. Ch.* *Cor.* infundibul. obtusa. *Stam.* inclinata. *Caps.* operculata, 2-locularis.

*Sp. Ch.* H. foliis amplexicaulibus sinuatis, floribus sessilibus.

THE root is biennial, long, compact, white, and beset with many fibres: the stalk is erect, round, woody, branched, and rises about two feet in height: the leaves are large, cut into irregular lobes or pointed segments, of a sea-green colour, undulated, woolly, and at their bases embrace the stem: the flowers are produced in irregular clusters at the tops of the branches; they are funnel-shaped, consisting of a short tube, with an expanded limb, which is divided into five obtuse segments, of an obscure yellow colour, and beautifully painted with many purple veins: the calyx is divided into five short pointed downy segments: the five filaments are tapering, downy at the base, inserted in the tube of the corolla, and furnished with large oblong antheræ: the germen is roundish: the style slender, longer than the stamina, and terminated by a blunt stigma: the capsule is oval, marked with a line on each side, and divided into two cells, which contain many small irregular brown seeds. It is a native of England, and grows commonly amongst rubbish, about villages, road sides, &c. and flowers in June.

“ The smell of *Hyoscyamus* is strong and peculiar, and the leaves, when bruised, emit somewhat of the odour of tobacco. This smell is still stronger when the leaves are burnt; and on burning they sparkle with a deflagration, somewhat resembling that of nitre, but to the taste they are mild, and mucilaginous.” Henbane is a powerful narcotic poison,<sup>a</sup> and many instances of its deleterious effects are recorded by different authors;<sup>b</sup> from which it appears that any part of the plant, when taken in sufficient quantity, is capable of producing

<sup>a</sup> Haller says, *Memini fodalem meum Simonium, cum Leidæ mecum, anno 1725. Boerhaavii scholas frequentaret, Aconita, Apocyna, Belladonnæ baccas impune devorasse, ab Hyoscyami vero semine victum, nimix curiositatis pœnas dedisse, atque mente alienatum, alteroque latere resolutum, tamen a Præceptore servatum fuisse. Stirp. Helv. n. 580.*

<sup>b</sup> Out of the many instances of this kind, we shall only advert to some of them, in order to shew that the roots, seeds, and leaves of this plant, have separately produced poisonous effects. Dr. Patoullat, Physician at Toucy in France, relates (in the *Phil. Transf. vol. 40. p. 446*) that nine persons, in consequence of having eaten the roots of *Hyoscyamus*, were seized with most alarming symptoms; “ some were speechless, and shewed no other signs of life than by convulsions, contortions of their limbs, and the risus sardonius; all having their eyes starting out of their heads, and their mouths drawn backwards on both sides; others had all the symptoms alike; however five of them did now and then open their mouths, but it was to utter howlings. The madness of all these patients was so complete, and their agitations so violent, that in order to give one of them the antidote, I was obliged to employ six strong men to hold him while I was getting his teeth asunder to pour down the remedy.” And what is remarkable, Dr. P. says, that on their recovery, all objects appeared to them as red as scarlet, for two or three days.—Further accounts of the effects of these roots are given by Wepfer de Cicut, &c. p. 230. Simon Pauli *Quadr. p. 384.* Blom, in *Vet. Ac. Handl. 1774. p. 52.*—Respecting the seeds of Henbane, we have an account given by Sir Hans Sloane, (in the *Phil. Transf. vol. 38. p. 99.*) of four children who ate them by mistaking the capules, in which they were contained, for filberts. “ The symptoms that appeared in all the four were great thirst, swimings of the head, dimness of sight, ravings, profound sleep, which last in one of the children continued two days and nights.” See also *Essays and Observations, phys. & lit. vol. 2. p. 243.* *Helmont. Ort. Med. p. 306.* *Ephemer. Germ. annis 7 & 8. &c.*—The leaves of *Hyoscyamus*, we are told, were boiled in broth, and eaten by seven persons, (five men and two women) who soon became affected with symptoms of intoxication. Dr. Stedman says, “ I saw them about three hours after having eat it; and then three of the men were become quite insensible, did not know their comrades, talked incoherently, and were in as high a delirium as people in the rage of a fever. All of them had low irregular pulses, flattered, and frequently changed colour: their eyes looked fiery, and they caught at whatever lay next them, calling out that it was going to fall.” *Phil. Transf. vol. 47. an. 1750.*

For additional facts, see *Haller l. c.* *Spielmanni Diff. de veget. ven. Afsat.*

Henbane is poisonous to birds and dogs; but horses, cows, goats, and swine, it does not affect.

very

very dangerous and terrible symptoms.‡ But there cannot be a doubt that this plant, like others of the same natural order, under proper management, may be safely employed, and be found in many cases to be an active and useful remedy. Hyoscyamus was well known to the ancients, and its effects as an anodyne were experienced by Dioscorides,<sup>c</sup> and with this intention it has been used both internally and externally by several subsequent writers, particularly by Celsus;<sup>d</sup> and in hæmorrhagic diseases, the sem. Hyoscyami were successfully given by Plater,<sup>e</sup> Forestus,<sup>f</sup> and Boyle.<sup>g</sup>

It appears however that for a long time past the employment of Henbane, in the practice of medicine, was wholly laid aside till Baron Stœrck published several cases of different diseases, in which an extract, prepared from the juice of this plant, had been discovered to be an efficacious remedy.<sup>h</sup> These diseases are stated by the Baron to be internal spasms and convulsions, palpitations of the heart, madness, melancholy, epilepsy, inveterate head-aches, hæmoptysis; and a troublesome cough, which accompanied the last-mentioned complaint, was completely appeased by the repeated use of the extract, which in several disorders was often found to produce sleep more powerfully than opium. The success of Hyoscyamus in these cases, (many of which were said to be of long duration, and to have resisted the effects of other remedies) is also confirmed by Collin, who extended the dose of the Extract. Hyoscyami, to twenty-four or thirty grains per diem.<sup>i</sup> But from the experiments made of this medicine by Greeding, who tried it in forty cases of melancholia, mania, and epilepsia, the result was very different:<sup>k</sup> yet while his practice shews that no benefit is to be expected in these three diseases, it tends to prove that this medicine is a useful anodyne; and as it usually opens the

‡ Vires emollientes, & narcoticas, classis suæ potentissimas possidet, ut etiam magis, quam reliquæ, mentem emovere videatur, & deliria furiosa, rixosaque ciere, unde olim nomen gessit *alterci*. Ea deliria aliquando fugacia sunt, & temulentix similia; alias diutius durant; & denique in mortem transeunt. Alias Hyoscyamus hominem in stuporem conjicit. Sed & sopores facit, & vertigines, convulsiones, risusque sardonios, & inflationes, strangulationes, ardorem faucium, frigus extremorum. Si alvum duxit, a resolutione aliqua toni id videtur factum fuisse. *Haller l. c.*

<sup>c</sup> Lib. 4. c. 69.

<sup>d</sup> Lib. 5. c. 25.

<sup>e</sup> *Prax. Med.* p. 635.

<sup>f</sup> *Observat. lib.* 16.

<sup>g</sup> *Usefulness of Nat. Phil. part* 2.

<sup>h</sup> *Lib. æ Stram. Hyoscyam. &c.*

<sup>i</sup> *Observ. Tom.*

2. p. 142.

<sup>k</sup> Vide *Lud.v. Advers. Med. pr. Vol. i. P. i. p. 71. & sq.*

body,



body, it may be advantageously substituted for opium, where the astringency of the latter becomes an objection to its use. Dr. Cullen says, " that in epilepsy, and various convulsive affections, for which Baron Storck particularly recommends the extract of Henbane, we have very frequently employed it, but have never found it of any great virtue, nor of more than what we have found in opium. We have indeed found the Hyosciamus to be often an agreeable anodyne and soporiferous medicine; and we have frequently found it such in persons, who from particular circumstances did not agree with opium, and particularly because it was less binding to the belly than opium. We judge however that it is more ready in full doses to give delirium than opium is, and therefore we found it in many cases to give turbulent and unrefreshing sleep; and notwithstanding its laxative qualities, for which we had employed it, we have been obliged to lay it aside." <sup>1</sup> Stoerck and some others recommend this extract in the dose of one grain or two; but Dr. Cullen observes, that he seldom discovered its anodyne effects till he had proceeded to doses of eight or ten grains, and sometimes to fifteen, and even to twenty.

The leaves of Henbane are said to have been applied externally with advantage in the way of poultice, to resolve scirrhus tumours, and to remove some pains of the rheumatic and arthritic kind.

<sup>1</sup> *Mat. Med. vol. ii. p. 271.*

## ALTHÆA OFFICINALIS.

## MARSH-MALLOW.

*SYNONYMA.* Althæa. *Pharm. Lond. & Edinb.* Althæa Dioscoridis et Plinii. *Baub. Pin. p. 315.* Althæa vulgaris. *Park. Theat. p. 303.* *Raii Hist. 602.* *Synop. 252.* Althæa Ibisus. *Gerard. Emac. p. 933.* Althæa five Bismalva. *J. Baub. Hist. vol. ii. p. 954.* Althæa tomentosa herbacea, caule erecto, foliis cordato-lanceolatis obsolete trifidis. *Hal. Stirp. Helv. n. 1047.* Althæa officinalis. *Flor. Dan. tab. 530.* *Withering. Bot. Arrang. p. 735.* *Αλθαία* f. *Ιβισκος* *Dioscorid.*

*Class* Monadelphia.



*Althaea officinalis*





*Class* Monadelphia. *Ord.* Polyandria. *Lin. Gen. Plant.* 839.

*Eff. Gen. Ch.* *Cal.* duplex; exterior 9-fidus. *Arilli* plurimi, monospermi.

*Sp. Ch.* *A.* foliis simplicibus tomentosis.

THE root is perennial, long, tough, white, and fibrous: the stalk is upright, firm, woolly, somewhat branched towards the top, and rises to the height of three or four feet: the leaves are ovalish, or heart-shaped, commonly with a lobe on each side, pointed, irregularly serrated, covered with a soft down, and stand upon long round footstalks: the stipulæ are two, narrow, and placed at the base of each leaf-stalk: the flowers are large, and consist of five petals, inversely heart-shaped, indented at the apex, and of a pale purple colour: the calyx is double, the exterior consisting of nine and the interior of five narrow pointed segments: the stamina are numerous, united at the base, and terminated by kidney-shaped antheræ: the germen is orbicular: the styli cylindrical, and furnished with many long bristly stigmata: the seeds are kidney-shaped, numerous, placed in a circle, and covered with an arillus. It is a native of England, and grows commonly near the sea shore, or about salt marshes, and flowers in August.

The Althæa seems to have been known to the ancients,<sup>a</sup> and has continued in very general officinal use by practitioners in every country where the science of medicine is regularly cultivated. "The dry roots of this plant, boiled in water, give out half their weight of a gummy matter,† which, on evaporating the aqueous fluid, forms a flavourless yellowish mucilage. The leaves afford scarcely one-fourth of their weight, and the flowers and seeds still less."<sup>b</sup>

<sup>a</sup> It is called Althæa, says Dioscorides *δια το πολυαλθες αυτης* a multiplici excellentique quam in methodo præstat utilitate. l. 3. c. 163 p. 236. Hence also vismalva & bis-malva, malvaviscus, malva-ibiscus, (Alston Lect. on the Mat. Med.) and therefore may be supposed to be the hibiscus of Virgil:—

Hædorumque gregem viridi compellere hibisco.

Ec. ii. l. 30. et Ec. x. l. 71.

† This is thought to be nearly allied to Gum arabic, Tragacanth, Starch, &c. and it has been found to dissolve myrrh, and some other resinous substances, more readily than the first. Buchholz *Art. Nat. Cur. Tom.* p. 60. Expt. 32.

<sup>b</sup> Lewis *Mat. Med.* p. 40.

This gluten or mucilaginous matter with which the *Althæa* abounds, is the medicinal part of the plant, and is commonly employed for its emollient and demulcent qualities. Its use is recommended where the natural mucus of membranes becomes acrid or abraded; “for obtunding and incrassating acrimonious thin fluids, in tickling coughs from defluctions on the fauces and lungs, in hoarseness, erosions of the stomach and intestines, stranguary,† and for lubricating and relaxing the passages in nephritic and calculous complaints.”<sup>c</sup> *Radix Althææ* formerly had a place in many of the compounds in the pharmacopœias, but now it is only directed in the form of a syrup.

† We may here remark however, that in the opinion of Dr. Cullen these “demulcents can have no effect as such in the mass of blood, or in passing by the various excretions.” *Mat. Med. vol. ii. p. 411.*

<sup>c</sup> Lewis l. c.

## MALVA SYLVESTRIS.

## COMMON MALLOW.

*SYNONYMA.* *Malva. Pharm. Lond. & Edinb.* *Malva sylvestris folio sinuato. Baub. Pin. p. 314.* *Malva vulgaris flore majore, folio sinuato. J. Baub. Hist. vol. ii. p. 949.* *Malva vulgaris. Park. Theat. p. 299.* *Raii Hist. p. 599.* *Synop. p. 251.* *Malva caule erecto, foliis lobatis, lobis ferratis, quinis & septenis. Hal. Stirp. Helv. n. 1069.* *Malva sylvestris. Gerard. Emac. 930.* *Withering. Bot. Arrang. p. 738.* *Curt. Flor. Lond.*

*Class* Monadelphia. *Ord.* Polyandria. *Lin. Gen. Plant.* 841.

*Eff. Gen. Ch.* *Cal.* duplex; exterior 3-phyllus. *Arilli* plurimi, monospermi.

*Sp. Ch.* *M. caule erecto herbaceo, fol. septemlobatis acutis, pedunculis petiolisque pilosis.*

THE root is perennial, thick, long, whitish, and furnished with many strong fibres: the stem is erect, round, strong, hairy, branched, and rises from one to three feet in height: the leaves are numerous, roundish,

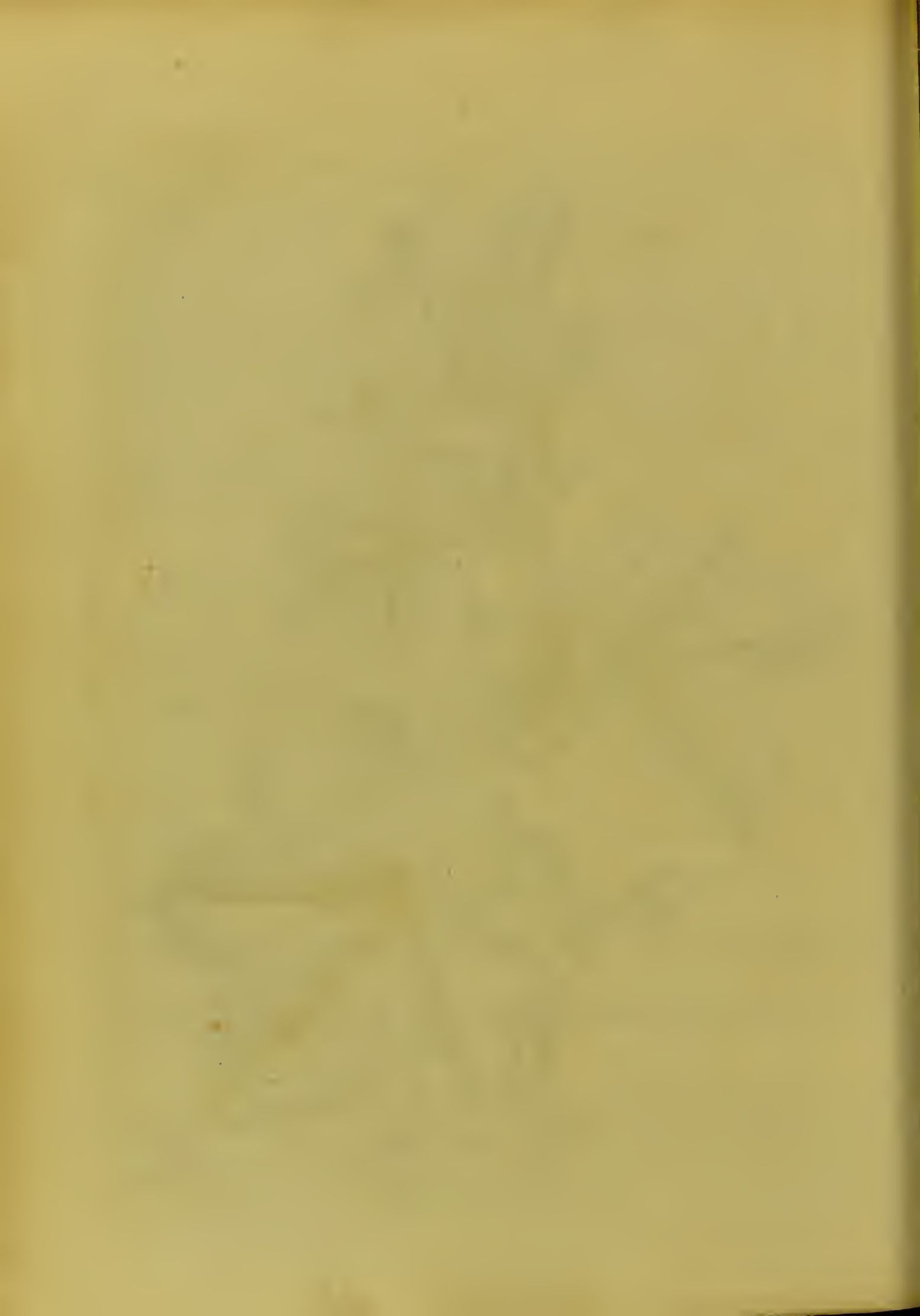




*Malva sylvestris*

Published by D.<sup>r</sup> Woodville Nov. 1. 1790.





roundish, divided into five or seven lobes, unequally serrated or notched at the edges, and stand upon long round hairy footstalks: the two stipulæ are placed at the base of each footstalk: the flowers are large, consisting of five petals, which are inversely heart-shaped, sinuated at the apex, and of a purple colour, painted with veins of a deeper hue, and stand upon slender peduncles, which proceed from the bottom of the leaf-stalks: the calyx is double, the outer is composed of three, and the inner of five oval pointed hairy segments: the stamina are numerous, united at the base in a cylindrical shape, above separate, bending downwards, and furnished with kidney-shaped antheræ: the germen is roundish: the style cylindrical, short, and furnished with many filiform stigmata: the seeds are numerous, of a kidney-shape, and covered with a coat, or arillus, which opens inwardly. It is common under hedges and in waste grounds, and flowers from June till September.

This plant<sup>a</sup> has a strong affinity to the *Althæa* both in a botanical and in a medicinal respect; but the roots of the malva are useless, while those of *althæa* are of more efficacy than any other part of the plant. Accordingly we find that only the leaves and the flowers of the former are directed by the college for pharmaceutical purposes. Formerly when horticulture was little understood, and of course the choice of esculent vegetables extremely limited, the malva was admitted amongst the more common articles of diet;<sup>b</sup> and we are told that the Chinese still eat the leaves of mallow either raw as salad, or boiled as spinach.<sup>c</sup>

Respecting the medicinal qualities of this plant, little remains to be said after the account we have given of *Althæa*, as the leaves

<sup>a</sup> “Malva quasi melva quod alvum molliat, ut inquit Festus, secundum tritum illum Scholæ Salern. versiculum, dixerunt malvam veteres quia molliat alvum. Gr. *μαλαχνη*, *απο μαλασσειν*, ob eandem rationem. Utrumque etymon improbat C. Hoffman nec tamen meliora substituit.” *Tournsf.*

<sup>b</sup> ——— Me pascunt olivæ

Me cichorea leveſque malvæ.

*Hor. l. 1. Od. 31.*

Exoneraturas ventrem mihi villica malvas

Attulit, & varias, quas habet hortus, opes. *Martial.*

The laxative quality of this plant is also mentioned by Cicero.

*Epistol. lib. 7. epist. 26.*

<sup>c</sup> *Melanges interessans et curieux. Tom. 4. p. 28.*

afford a similar glutinous juice, which is fitted to answer the same purposes as those of marsh-mallow, and are therefore principally used in fomentations, cataplasms, and emollient enemata; but the internal use of these leaves seems to be wholly superseded by the radix althææ.<sup>d</sup>

<sup>d</sup> “ Althææ in omnibus supra dictis efficacior radix.” Plin. Nat. Hist. vol. 2. p. 662.

## LAVANDULA SPICA. COMMON LAVENDER.

*SYNONYMA.* Lavendula. *Pharm. Lond. & Edinb.* Lavendula angustifolia flore cæruleo. *Baub. Pin. p. 216.* Lavendula minor sive spica. *Gerard. Emac. p. 584. Raii Hist. p. 513. Park. Theat. p. 73.* Pseudo-nardus quæ Lavendula vulgo. *J. Baub. Hist. vol. iii. p. 282.* Lavandula foliis lineribus, spicis nudis. *Hal. Stirp. Helv. n. 232.*

*Varietates sunt.*

α Lavandula angustifolia flore cæruleo. *Baub. Pin. p. 216.*

Narrow-leaved blue flowered common Lavender.

β Lavandula angustifolia flore albo. *Baub. l. c.*

Narrow-leaved white flowered common Lavender.

γ Lavandula latifolia. *Baub. l. c.*

Broad-leaved common Lavender. *Vide Aiton. Hort. Kew.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant. 711.*

*Eff. Gen. Ch.* Calyx ovatus, subdentatus, bractea suffultus. *Corolla* resupinata. *Stamina* intra tubum.

*Sp. Ch.* L. foliis sessilibus lanceolato-linearibus margine revolutis, spica interrupta nuda.

THE root is perennial, thick, fibrous, and woody: the stalk is shrubby, much branched, and often rises to the height of five or six feet: the bark of the younger shoots is of a pale-green colour, but  
of





*Lavendula Spica*

Published by D<sup>r</sup> Woodville Nov<sup>r</sup> 21. 1790.



of the old woody part of the stem rough and brown: the leaves are numerous, long, narrow, entire, without footstalks, of a whitish green colour: the flowers are produced in terminal spikes upon the young shoots, and are of a bright blue colour: the corolla consists of a long cylindrical tube, divided at the mouth into two lips, the uppermost of which is largest, and cut into two segments; the lower expands downwards, and separates into three: the filaments are four, two long, and two short, inclosed within the tubular part of the corolla, and support small simple antheræ: in the place of a germen we find four naked seeds, from the center of which proceeds the style, which is slender, and furnished with a bilobated stigma. It is a native of the south of Europe, and flowers from July till September. This plant was formerly considered as a species of *Nardus*, and appears to be the *Pseudo-nardus* of Matthiolum and Pliny.

Lavender grows spontaneously in many of the southern parts of Europe; it appears from Turner to have been cultivated in England previous to the year 1568,<sup>a</sup> and on account of the fragrance of its flowers, it is now so commonly cultivated, that we can scarcely enter a garden in which this plant is not to be found. The fragrant smell of the flowers is well known, and to most people agreeable; to the taste they are bitterish, warm, and somewhat pungent; the leaves are weaker and less grateful. “ Water extracts by infusion nearly all the virtue both of the leaves and flowers. In distillation with water the leaves yield a very small portion of essential oil; the flowers a much larger, amounting in their perfectly mature state<sup>b</sup> to about one ounce from sixty. The oil is of a bright yellow colour, of a very pungent taste, and possesses, if carefully distilled, the fragrance of the Lavender in perfection.” Rectified spirit extracts the virtue of Lavender more

<sup>a</sup> Vide Aiton's *Hort. Kew*.

<sup>b</sup> In order to obtain the largest quantity of essential oil from these and most other flowers of this kind, they should be allowed to grow to their full maturity, and be dried for some time.

<sup>c</sup> Hence it is frequently employed as a perfume. This oil has been used for stimulating paralytic limbs, and for other external purposes. We are also told that it effectually destroys cutaneous insects, and that if soft spongy paper be dipped in this oil, and applied to the parts, it immediately kills the *pediculi inguinales*.—This oil, distilled from the broad-leaved lavender, and mixed with three-fourths of rectified spirit, or oil of turpentine, was the *Oleum spicæ*, formerly highly celebrated as an application to indolent tumours, old sprains, diseased joints, &c.



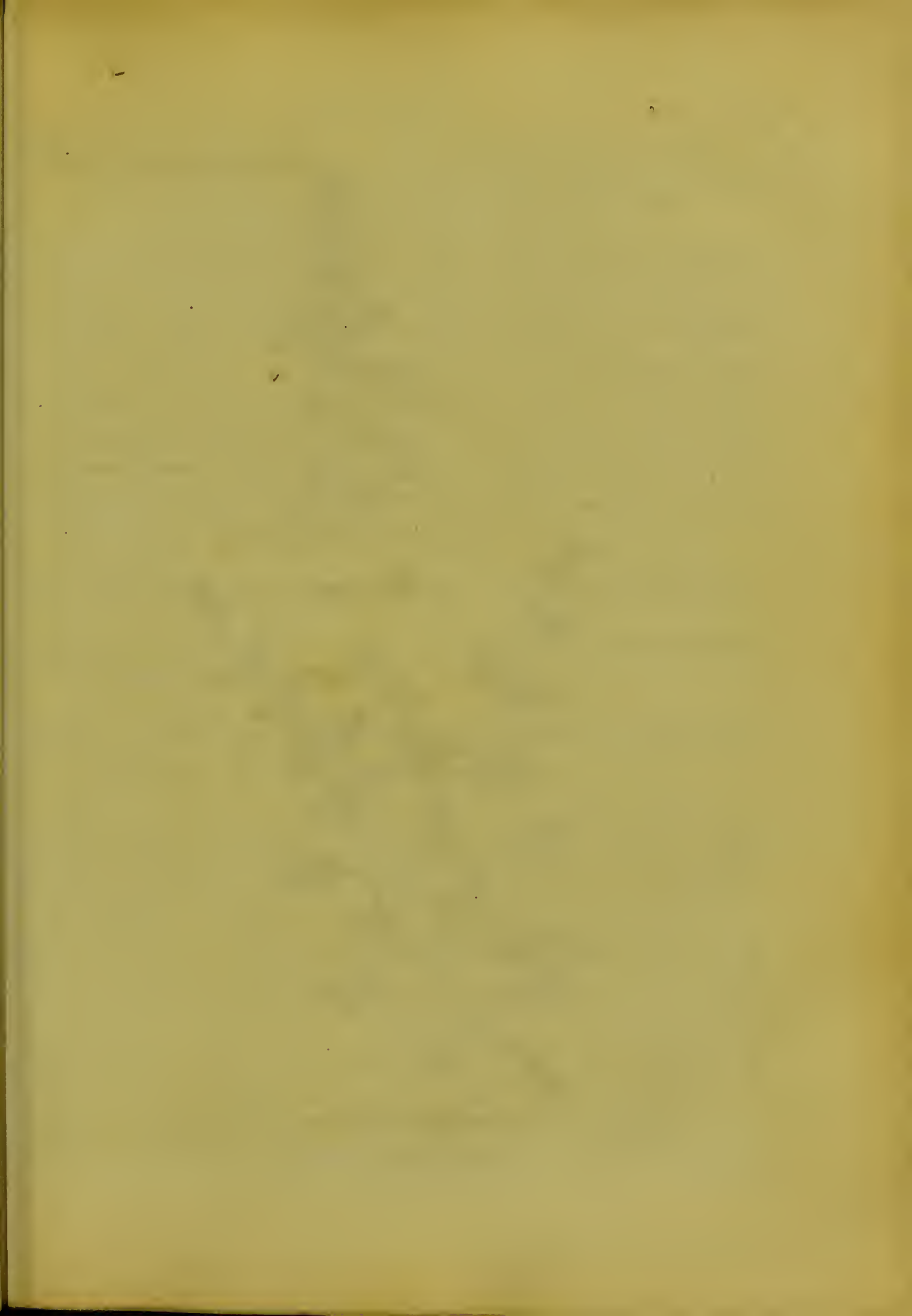
completely than water. The spirit elevates also in distillation a considerable part of the odoriferous matter of the leaves, and greatest part of that of the flowers; leaving in the inspissated extracts a moderate pungency and bitterness, with very little smell.”<sup>d</sup>

Lavender has been an officinal plant for a considerable time, though we have no certain accounts of it given by the ancients: its medicinal virtue resides in the essential oil, which is supposed to be a gentle corroborant and stimulant of the aromatic kind,<sup>e</sup> and is recommended in nervous debilities and various affections proceeding from a want of energy in the animal functions. According to Dr. Cullen, it is, “whether externally applied or given internally, a powerful stimulant to the nervous system; and among the others of this order, named Cephalics, the Lavender has a very good and perhaps the best title to it.” And he further says, “it appears to me probable, that it will seldom go further than exciting the energy of the brain to a fuller impulse of the nervous power into the nerves of the animal functions, and seldom into those of the vital. It may however be with great propriety, that Professor Murray has dissuaded its use where there is any danger from a stimulus applied to the sanguiferous system. It is however still probable, that Lavender commonly stimulates the nervous system only, and therefore may be more safe in palsy than the warmer aromatics, especially if the Lavender be not given in a spirituous menstruum, or along with heating aromatics, which however is commonly done in the case of the *spiritus lavendulæ compositus*.”<sup>f</sup> The officinal preparations of Lavender, are the essential oil, a simple spirit, and a compound tincture.

<sup>d</sup> Lewis’s Mat. Med. p. 371.

<sup>e</sup> Bergius says, *Virtus*: nervina, resolvens, tonica, emmenagoga. *Ufus*: externus. M. M. p. 513.

<sup>f</sup> Mat. Med. vol. ii. p. 148.





*Teucrium Marum*

Published by D. Woodville Decr 1790.



## TEUCRIUM MARUM.

MARUM GERMANDER,  
Or, SYRIAN HERB MASTICH.

*SYNONYMA.* Marum Syriacum. *Pharm. Lond.* Marum Cortusi. *J. Baub. Hist. v. iii. p. 242.* Marjorana Syriaca vel Cretica. *Baub. Pin. p. 224.* Marum Syriacum vel Creticum. *Park. Theat. p. 13.* *Raii Hist. p. 527.* Chamædryas incana maritima frutescens, foliis lanceolatis. *Tourn. Inst. p. 205.* Tragoriganum Thymi latioribus foliis, subtus incanis; flore magno suave-rubente. *Pluk. Alm. p. 374.* Thymum Creticum, &c. *Breyn Prod. ii. p. 99.* C. Schreberi *verticill. unilab. n. 28. et Linn. Diff. de Maro resp. Dahlgren. p. 7.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant. 706.*

*Eff. Gen. Ch.* Corollæ labium superius (nullum) ultra basin 2-partitum, divaricatum ubi stamina.

*Sp. Ch.* T. foliis integerrimis ovatis acutis petiolatis, subtus tomentosis, flor. racemosis fecundis.

THE root is perennial, long, ligneous, and divides into many fibrous branches: the stalks are numerous, slender, shrubby, woolly, somewhat branched, and rise above a foot in height: the leaves are oblong, pointed, entire, and near the bottom obscurely lobed: the upper pagina is of a pale green colour; the under, white and downy; they are placed in pairs upon slender footstalks, which become gradually elongated towards the lower part of the stems: the flowers are produced in spikes, and all stand on the same side in pairs, upon short peduncles: the corolla consists of a short curved cylindrical tube, which divides at the limb into two lips; the upper lip is short, erect, and divided to the base, by which it seems lost in the under lip, which is long, of a pale purple colour, and separated into six lobes, of these the outermost are the largest: the calyx is tubular, whitish,

whitish, woolly, and cut into five short pointed segments : the filaments are two long and two short, slender, white, and furnished with simple antheræ : the germen is quadrifid, and supports a slender style, with a bifid stigma : the seeds are four, of a brown colour, and lodged in the calyx, which serves the purpose of a capsule.

This little shrub flowers from July till September. It is a native of Spain, and is said to grow plentifully also in Greece, Ægypt, Crete, and Syria.

Whether this plant was known to the ancients or not, does not appear from the descriptions of Theophrastus and Dioscorides. — Cortusus<sup>a</sup> discovered that cats are remarkably fond of Marum ;\* and from this circumstance we are enabled with certainty to trace back its history to his time, for ever since it has been known by the name of Cat-thyme : there occurs however considerable difficulty in ascertaining its synonyma ; and probably some of those to which we have referred, are not sufficiently identified. It was first cultivated in England by Parkinson<sup>b</sup> in 1640, and is now to be found in many of our gardens.

The leaves and younger branches of Marum, when recent, on being rubbed betwixt the fingers, emit a volatile aromatic<sup>c</sup> smell, which readily excites sneezing, but to the taste they are bitterish accompanied with a sensation of heat and acrimony. Lewis observes, that “ the Marum loses but little of its pungency on being dried, and in this respect it differs remarkably from many other acrid herbs, as those called antiscorbutic. It gives out its active matter partially to water, and completely to rectified spirit. — Distilled with the former, it yields a highly pungent, subtile, volatile essential oil, similar to that of scurvy grass, but stronger, and of less perishable pungency. Rectified spirit carries off likewise, in the inspissation of the spirituous tincture, a considerable share of the smell and pungency of the Marum, but leaves much the greatest part concentrated in the

<sup>a</sup> See Jac. Antonii Cortusi Catalogus Horti Patavini, anno 1591, & J. Bauh. l. c.

\* Cats are also known to have a similar fondness for the *Nepeta Cataria*, and the roots of *Valeriana* off.

<sup>b</sup> Vide Aiton's *Hort. Kew.*

<sup>c</sup> Murray says, — Ut sal volatile olfactum grato suo et camphoraceo fere aromate nares vellicant, in sternutationem usque, et per momentum temporis animum eximie erigunt. App. Med. vol. 2. p. 108.

extract; which, on being tasted, fills the mouth with a durable, penetrating, glowing warmth.”<sup>d</sup>

Judging from the sensible qualities of this plant, it may be supposed to possess very active powers, and on this consideration it is strongly recommended by Wedelius<sup>e</sup> as an important remedy in many diseases requiring medicines of a stimulant, aromatic, and deobstruent quality; and his opinion seems in some measure to have been since verified by actual experience of its efficacy, as appears from the instances of its successful employment by Linnæus,<sup>f</sup> Rosenstein,<sup>g</sup> and Bergius.<sup>h</sup> The last mentioned writer says of it, *Virtus*: nervina, tonica, resolvens, emmenagoga, diuretica, errhina. *Ufus*: Cachexia, Hysteria, Debilitas nervorum.—At present however Marum is here chiefly used as an errhine, and is an ingredient in the pulvis asari compositus of the London Pharmacopœia. The dose of the powdered leaves is from a scruple to half a dram, which Murray advises to be given in wine.

<sup>d</sup> Lewis Mat. Med. p. 412.

<sup>e</sup> *Diff. de Maro resp.* Hermann 1703. — Its cephalic efficacy is highly commended by Hermann (*Cynos. Mat. Med. tom. 2. p. 349.*) and Boerhaave (*Hist. Plant. hort. L. B. p. 262.*)

<sup>f</sup> Of these we may mention Menstrua suppressa, Apoplexy, Asthma, and various other pulmonary affections. Vide l. c.

<sup>g</sup> Murray says, “Litteris vero ad me datis, vir. illustris perscripsit, se eadem medela b. Rosensteinio, dirissima et pertinacissima tussi cum difficillima respiratione in ultimo morbo confictato, levamen attulisse exoptatissimum.” l. c.

<sup>h</sup> He mentions the case of a lady who received a blow upon the head by falling from a carriage, which brought on a species of apoplexy, and was cured by this plant, after several other means had been tried ineffectually. M. M. p. 504.



## TEUCRIUM SCORDIUM.

## WATER GERMANDER.

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*SYNONYMA.* Scordium. *Pharm. Lond. & Edinb. Gerard. Emac. p. 661. Baub. Pin. p. 247. J. Baub. Hist. iii. p. 292. Raii Hist. p. 576. Synop. p. 245. Scordium legitimum. Park. Theat. p. 111. Chamædrys foliis mollibus, hirsutis, ellipticis, crenatis, verticillis paucifloris. Hal. Stirp. Helv. n. 288. Teucrium Scordium. Withering. Bot. Arrang. p. 591. Flor. Dan. 593.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 706.

*Eff. Gen. Ch.* Corollæ labium superius (nullum) ultra basin 2-partitum, divaricatum ubi stamina.

*Sp. Ch.* T. foliis oblongis sessilibus dentato-ferratis, floribus geminis axillaribus pedunculatis, caule diffuso.

THE root is perennial, fibrous, creeping: the stems are branched, trailing, square, hairy, and more than a foot in length: the leaves are serrated, hairy, oblong, veined, of a dusky-green colour, without footstalks, and placed in pairs: the flowers stand in verticilli or whorls of two, three, or four together, upon short peduncles, placed at the base of the leaves: the corolla is monopetalous, consisting of a short tube, which divides at the mouth into two lips, but the upper is extremely short, and cleft in the middle, and therefore appears to be wanting: the under lip is long, of a purple colour, dentated at the sides, and terminated by a large roundish expanded segment: the calyx is tubular, hairy, and cut at the extremity into five short teeth: the filaments are four, two long and two short, slender, bent, and crowned with simple antheræ: the germen divides into four parts, from the centre of which rises a slender style, furnished with a bifid stigma: the seeds are four, naked, of an irregular shape, and lodged in the bottom of the calyx. It is a native of England, in marshy situations, and flowers in July and August.

The



*Teucrium Scordium*

Published by D<sup>r</sup> Woodvill Dec<sup>r</sup> 1. 1700.





The leaves of Scordium have a smell somewhat of the garlick kind,<sup>a</sup> and to the taste they are bitterish, and slightly pungent. "When moderately and newly dried they give out their smell and taste both to water and to rectified spirit. In distillation their peculiar flavour arises with water, but the impregnation of the distilled fluid is not strong, nor could any essential oil be obtained on submitting to the operation several pounds of the herb."<sup>b</sup>

The ancients, to whom Scordium was well known,<sup>c</sup> attributed to it a peculiar antiseptic<sup>d</sup> and alexipharmic power, and for many ages it had the character of being remarkably efficacious in all pestilential and putrid diseases; with a view to this, it was afterwards directed in the composition of several officinal medicines,<sup>e</sup> supposed to be antidotes to various kinds of poisons and infections; and we are told, even at a date not very remote from the present, of its successful use in the plague, which raged in Turkey.<sup>f</sup> But notwithstanding the Scordium was formerly considered such a celebrated remedy, and still has place in both the Pharmacopœias, yet it appears to be a very insignificant article of the Materia Medica, and is therefore very justly fallen into disuse; and in this opinion we have the authority of Dr. Cullen, who says, "this plant has a bitter, joined with some volatile parts; but neither of these qualities is considerable enough to retain it in the present practice."<sup>g</sup> Bergius however states *virtus* to be antiputredinosa, tonica, diaphoretica, diuretica, resolvers;<sup>h</sup> and some others recommend it to be employed externally in antiseptic cataplasms and fomentations.

<sup>a</sup> From this smell it is supposed to take the name Scordium, or Σκορδοῦν, which signifies Garlick; and the milk of animals, which feed upon this plant, is said to acquire a similar flavour.

<sup>b</sup> Lewis *Mat. Med.* p. 596.

<sup>c</sup> We are far from being certain that the plant we have figured is really the Scordium of the ancients, and on this account we have not referred it to the Greek writers.

<sup>d</sup> Of the fabulous accounts of its antiseptic powers, we may mention the following from Galen: Scriptum autem est a quibusdam viris gravissimis, cum in bello interemptorum cadavera multos dies insepulta jaciissent, quæcunque supra scordium fortè fortuna ceciderant, multo minus aliis computruisse, ea præsertim ex parte quæ herbam contigerat. *Lib. de Antidot.* 6. cap. 12.

<sup>e</sup> The Mithridate and Theriaca have but lately been expunged from our dispensatories; and though often experienced to be useful remedies, yet with Haller we may say, "Sed cæ farragines sunt medicamentorum, in quibus non dignoscas, cui tribuas eventa." l. c.

<sup>f</sup> Vide *Lettres par De Foy*. t. 1. p. 198. and *Chenot de peste*, p. 132.

<sup>g</sup> *Mat. Med.* vol. 2. p. 82.

<sup>h</sup> *Mat. Med.* p. 505.

PUNICA GRANATUM.

## PUNICA GRANATUM.

## POMEGRANATE TREE.

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*SYNONYMA.* Granatum. *Pharm. Lond. & Edinb.* Malus Punica fativa. *Baub. Pin. p. 438. Park. Theat. p. 1510.* Malus Punica. *J. Baub. Hist. vol. i. p. 76.* Malus Granata five Punica. *Gerard. Emac. p. 1450.* Punica spinosa, foliis nitentibus, ellipticis, integerrimis, floribus sessilibus. *Hal. Stirp. Helv. n. 1098. Conf. Du Hamel Traité des arbres, t. 2. p. 193. et Miller Illustr. Syst. Sex. β Punica floribus plenis.* Theophrasti et Dioscoridi arbor ejusque fructus dicitur πορ; Hippocrati arbor audit σιδν, unde cortex fructus σιδιν vel Poms. Flores Punicæ fativæ autem Dioscoridi et Galeni κερνολ bodie Balauftiorum Flores, vocantur.

*Class* Icofandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 618.

*Eff. Gen. Ch.* Cal. 5-fidus, superus. *Petala* 5. *Pomum* multiloculare polyspermum.

*Sp. Ch.* P. foliis lanceolatis, caule arboreo.

THIS small tree rises several feet in height: it is covered with a brownish bark, and divided into many small branches, which are armed with spines: the leaves are oblong, or lance-shaped, pointed, veined, of a deep green colour, and placed upon short footstalks: the flowers are large, of a rich scarlet colour, and stand at the end of the young branches: the corolla is composed of five large roundish slender petals, with narrow claws, by which they are inserted into the calyx: the calyx is large, thick, fleshy, tubular, of a brownish red colour, and divided at the extremity into five pointed segments: the filaments are numerous, short, bent inwards, furnished with yellow antheræ, and attached to the calyx: the germen is roundish, and supports a simple style, of the length of the filaments, and terminated by a globular stigma: the fruit is about the size of an orange, and crowned with the five teeth of the calyx: the rind is thick and tough, externally





*Punica Granatum*

Published by D<sup>r</sup> Woodville. Dec<sup>r</sup> 1. 1790.





externally reddish, internally yellowish, filled with a red succulent pulp,<sup>a</sup> contained in transparent cellular membranes, and included in nine cells, within which numerous oblong angular seeds are also lodged. This shrubby tree is a native of Spain, Italy, and Barbary, and flowers from June till September.

The Greek writers were well acquainted with the Pomegranate, as appears from what we have already mentioned under the *Synonyma*; and Pliny tells us that its fruit was usually sold in the neighbourhood of Carthage.<sup>b</sup> The cultivation of this tree in England is first to be dated from the time of Gerard, in 1596;<sup>c</sup> and though its fruit seldom arrives to a state of perfection in this country,<sup>d</sup> yet the large and beautiful scarlet flowers<sup>e</sup> which it produces, still render it a desirable object of ornamental gardening. The rind of the fruit, and the flowers, the calyces of which may be included, are the parts directed in the Pharmacopœias for medicinal use. The fruit has been called cortex granati, malicorium, fidium, &c. In its smell there is nothing remarkable, but to the taste it is very astringent. “ With water it yields near half its own weight of a very austere extract, but gives out very little to rectified spirit; its astringent matter, like that of the fruit of the acacia tree, seeming to be indissoluble in spirituous menstrua: in this respect the astringency of the fruit differs from the latter,”<sup>f</sup> which are named Balauftium or Balauftine flowers; these are commonly taken from the double-flowered variety, and like the rind have little or no smell, but a mild bitterish styptic taste. They are both powerful astringents,<sup>g</sup> and with this effect have long been successfully employed in diseases both internally and externally. Dr. Cullen observes that “ the strong styptic taste of this bark, and the “ black colour it strikes with green vitriol, shew sufficiently its astringent “ power; and it is commonly supposed to be among the strongest of

<sup>a</sup> This is gratefully acid, somewhat like that of oranges.

<sup>b</sup> — Circa Carthaginem punicum malum cognomine sibi vendicat; aliqui granatum appellant. l. 13. c. 19. p. 333.

<sup>c</sup> Vide Aiton's Hort. Kew.

<sup>d</sup> Miller tells us that he obtained fruit from some of these trees which were planted in a warm situation, but they had not the proper flavour.

<sup>e</sup> The double flowered sort, more especially, makes a very beautiful appearance.

<sup>f</sup> Lewis Mat. Med. p. 328. <sup>g</sup> Virtus corticis: validus adstringens; coriaria; florum: paullo mitior; pulpæ refrigerans, restringens. Berg. M. M. p. 398.

“ this kind. As at the same time, it gives out such a large portion of  
 “ its substance to water in infusion or decoction, it seems to be par-  
 “ ticularly fit for affording a liquid astringent, and I have frequently  
 “ found it particularly useful in gargles, in diarrhœa, and in external  
 “ applications. That it is so powerful an astringent internally used,  
 “ as to be more dangerous than others, I cannot perceive; and that  
 “ it has ever had the power of suppressing the catamenia, seems to  
 “ me very doubtful.”<sup>h</sup> The dose, in substance, is from half a dram  
 to a dram; in infusion or decoction, to half an ounce.

<sup>h</sup> M. M. vol. ii. p. 44.

<sup>i</sup> *Ufus cort. externus, Laxitas uvulæ, Procerdentia intestini.* Berg. l. c.

## POTENTILLA REPTANS.

## COMMON CINQUEFOIL.

*SYNONYMA.* Pentaphyllum. *Pharm. Lond.* Quinefolium majus repens. *Baub. Pin. p.* 325. Quinefolium vulgare. *Gerard. Emac. p.* 987. Pentaphyllum vulgatissimum. *Park. Theat. p.* 398. *Raii Hist. p.* 611. *Synop. p.* 255. *J. Baub. Hist. p.* 397. *Fragara foliis quinatis, ferratis, petiolis unifloris, caule reptante. Hal. Stirp. Helv. n.* 1118. *Withering. Bot. Arrang. p.* 534. *Curtis Flor. Lond.*

*Class* Icofandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 634.

*Eff. Gen. Ch.* *Cal.* 10-fidus. *Petala* 5. *Sem.* subrotunda, nuda, receptaculo parvo ex succo affixa.

*Sp. Ch.* P. foliis quinatis, caule repente, pedunculis unifloris.

THE root is perennial, long, tapering, or fusiform, furnished with but few fibres, internally reddish, and externally of a yellowish brown colour: the stalks are numerous, slender, purplish, smooth, and creeping: the leaves are quinate, or five, placed together, and sometimes





*Potentilla reptans*

Published by D<sup>r</sup> Woodville Dec<sup>r</sup> 1. 1790.



times seven, of unequal size, elliptical, obtuse, serrated, veined, somewhat hairy, and sitting close to the common footstalk, which is of considerable length, and rises from the stoloniferous joints of the stem: the stipulæ stand in pairs, and are composed of three ovalish leaves: the flowers are yellow, and placed singly upon long slender peduncles: the corolla consists of five petals, which are inversely heart-shaped, of a bright yellow colour, and inserted into the calyx by short claws: the calyx is a perianthium of one leaf, divided into ten pointed segments, which are alternately smaller, and frequently turned back: the filaments are about twenty, short, tapering, and inserted at the glandular base of the calyx, and crowned by oblong, flattish, double-celled yellow antheræ: the germina are numerous, and form a conical head, supporting short styles, terminated by blunt stigmata: the seeds are numerous, small, and of a brown colour. It flowers from July till September, and is common on meadow banks, and on the sides of roads.

The roots of this plant have a bitterish styptic taste, and give out their astringent matter both to water and spirit. They were used by Hippocrates and Dioscorides, and by the former particularly recommended for the cure of intermittents.<sup>a</sup> And Ray tells us, that the peasantry still employ them with this intention.<sup>b</sup> The medicinal quality of Cinquefoil is confined to the external or cortical part of the root, and depends merely upon its astringent effects; it has therefore been chiefly prescribed internally in diarrhœas and other fluxes, and externally in gargles and astringent lotions: but as its efficacy is much inferior to many other plants of this class, the Cinquefoil is now rarely used. In large doses, however, it may be found no bad substitute for some of the other astringents.

<sup>a</sup> *De Morb. l. 2. p. 473.* Foës.

<sup>b</sup> *Hist. Plant. p. c.* See also Senac *de recond. febr. interm. nat. p. 185.*

NICOTIANA TABACUM.



## NICOTIANA TABACUM.

## VIRGINIAN TOBACCO.

*SYNONYMA.* Nicotiana. *Pharm. Lond. & Edinb.* Nicotiana major latifolia. *Baub. Pin. p.* 169. Nicotiana major five Tabacum majus. *J. Baub. Hist. iii. p.* 629. Tabacco latifolium. *Park. Parad. p.* 363. *Raii Hist. p.* 713. Hyoscyamus Peruvianus. *Gerard. Emac. p.* 357. Petum latifolium. *Clusius. Exot. p.* 309. Herba sancta. *Lobel. Advers. p.* 251. Nicotiana (*Tabacum*) foliis lanceolatis, ovatis, decurrentibus. *Miller. Dict.*

α Nicotiana major latifolia.

*C. B. l. c.*

Broad-leaved Virginian Tobacco.

β Nicotiana foliis lanceolatis acutis sessilibus, calycibus acutis, tubo floris longissimo.

*Miller. Dict.*

Narrow-leaved Virginian Tobacco.\*

*Class* Pentandria. *Ord.* Monogynia, *Lin. Gen. Plant.* 248.

*Eff. Gen. Ch.* *Cor.* infundibul. limbo plicato. *Stamina* inclinata. *Caps.* 2-valvis, 2-locularis.

*Sp. Ch.* N. foliis lanceolato-ovatis sessilibus decurrentibus, floribus acutis.

THE root is annual, large, long, and fibrous: the stalk is erect, strong, round, hairy, branched towards the top, and rises five or six feet in height: the leaves are numerous, large, oblong, pointed, entire, veined, viscous, of a pale green colour, without footstalks, and follow the stem downwards: the bractæ are long, linear, and pointed: the flowers terminate the stem and branches in loose clusters or panicles: the corolla is monopetalous, funnel-shaped, with a long hairy tube, which gradually swells towards the limb, where it divides into five folding acute segments of a reddish colour: the calyx is hairy, about the length of the corolla, and is cut into five narrow segments:

\* The figure here presented seems to accord very well with this variety.

the



*Nicotiana glauca*

Published by D. Woodville Decr 1 1790.





the five filaments are bent inwards, tapering, and crowned with oblong antheræ: the germen is oval, and supports a long slender style, terminated by a round cleft stigma: the capsule is oval, and divided into two cells, which contain many small roundish seeds.— It is a native of America, and flowers in July and August.

Tobacco was first imported into Europe about the middle of the sixteenth century by Hernandez de Toledo, who sent it to Spain and Portugal; at that time the Ambassador of Francis II. resided at the court of Lisbon, and in the year 1560, he carried the Tobacco into France, when it was presented to Catharine de Medicis as a plant from the new world, possessing extraordinary virtues. The Ambassador's name was Nicot, and hence the appellation Nicotiana. It appears from Lobel, that this plant was cultivated in Britain previous to the year 1570;<sup>a</sup> and the introduction of the custom of smoking it in England is ascribed to Sir Walter Raleigh. The cultivation of Tobacco \* is now common in various parts of the globe, and though

<sup>a</sup> Vide l. c.

\* Long, in his History of Jamaica, describes the method of its cultivation to be as follows:—“ When a regular plantation of Tobacco is intended, several beds are prepared, well turned up with the hoe. The seed, on account of its smallness, is mixed with ashes, and sown upon them a little before the rainy season. The beds are then raked, or trampled with the feet, to make the seed take the sooner. The plants appear in two or three weeks. So soon as they have acquired four leaves, the strongest are drawn up carefully and planted in the Tobacco field by a line, at the distance of about three feet from each plant: this is done either with a stick or the finger. If no rain falls, it should be watered two or three times, to make it strike root. Every morning and evening the plants must be surveyed, in order to destroy a worm which sometimes invades the bud. When they are grown about four or five inches high they are to be cleaned from weeds, and moulded up; and as soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker. After this, the buds which sprout at the joints of the leaves are all plucked, and not a day suffered to pass without examining the leaves, to destroy a large caterpillar which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground; and after being left to lie there some little time, are carried to the drying-shed or house, where the plants are hung up, by pairs, upon lines or ropes stretched across, leaving a space between, that they may not touch one another. In this state they remain to sweat and dry. When they become perfectly dry, the leaves are stripped from the stalks, and made into small bundles, tied with another leaf. These bundles are laid in heaps, and covered with blankets. Care is taken not to overheat them; for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the Tobacco is then stowed in casks for exportation.”—Vol. 3. p. 719.

prohibited by the laws of this country, still the manufacture of it forms no inconsiderable branch of commerce.

The different sorts of Tobacco and Snuffs prepared from it which are now in use, are to be attributed to the difference of the climate and soil in which it grows, and the peculiar mode of managing and manufacturing the plant, rather than to any essential difference in its qualities; we shall therefore proceed to the consideration of the effects of Tobacco upon the body, which from its general employment deserves particular attention; and no apology will be thought necessary for transcribing the whole of what has been lately advanced upon this subject by Dr. Cullen.—“ Tobacco is a well-known drug, of a narcotic quality, which  
 “ it discovers in all persons, even in small quantity, when first applied  
 “ to them. I have known a small quantity of it, snuffed up the nose,  
 “ produce giddiness, stupor, and vomiting; and when applied in different  
 “ ways, in larger quantity, there are many instances of its more  
 “ violent effects, even of its proving a mortal poison. In all these  
 “ instances it operates in the manner of other narcotics: But along  
 “ with its narcotic qualities it possesses also a strongly stimulant power,  
 “ perhaps with respect to the whole system, but especially with respect  
 “ to the stomach and intestines; so as readily, even in no great doses,  
 “ to prove emetic and purgative.

“ By this combination of qualities, all the effects of tobacco may  
 “ be explained; but I shall begin with considering its effects as they  
 “ appear in the use of it as an article of living.

“ As such it has been employed by snuffing, smoking, and chewing;  
 “ practices which, as having been for two hundred years past common  
 “ to all Europe, need not be described here. Like other narcotics,  
 “ the use of it may be introduced by degrees; so that its peculiar  
 “ effects, even from large quantities employed, may not, or may  
 “ hardly at all appear: but this does not at all contradict the account  
 “ I have given of its quality with respect to persons unaccustomed to  
 “ it, and even of its tendency to show its power in those much accustomed to it: for even in these, the power of habit has its limits;  
 “ so that in persons going but a little beyond the dose to which they  
 “ have been accustomed, very violent effects are sometimes produced.

“ On this subject it is to be remarked, that the power of habit is  
 “ often unequal; so that in persons accustomed to the use of tobacco,  
 “ a lesser

“ a lesser quantity than what they had been accustomed to, will often  
 “ have stronger effects than had before commonly appeared. I knew  
 “ a lady who had been for more than twenty years accustomed to  
 “ take snuff, and that at every time of day; but she came at length  
 “ to observe, that snuffing a good deal before dinner took away her  
 “ appetite: and she came at length to find, that a single pinch, taken  
 “ any time before dinner, took away almost entirely her appetite for  
 “ that meal. When, however, she abstained entirely from snuff before  
 “ dinner, her appetite continued as usual; and after dinner, for the rest  
 “ of the day, she took snuff pretty freely without any inconvenience.

“ This is an instance of the inequality of the power of habit in  
 “ exerting its effects: but in what cases this may take place, we  
 “ cannot determine, and must now go on in marking its usual and  
 “ ordinary powers. When snuff, that is, tobacco in powder, is first  
 “ applied to the nose, it proves a stimulus, and excites sneezing; but  
 “ by repetition that effect entirely ceases.

“ When snuff is first employed, if it be not both in small quantity  
 “ and be not thrown out immediately by sneezing, it occasions some  
 “ giddiness and confusion of head; but by repetition these effects  
 “ cease to be produced, and no other effect of it appears in the  
 “ accustomed, when not taken beyond the accustomed quantity. But  
 “ even in the accustomed, when it is taken beyond the usual quantity,  
 “ it produces somewhat of the same giddiness and confusion of head  
 “ that it did when first employed; and in several cases, these effects  
 “ in the accustomed, depending on a larger dose, are not only more  
 “ considerable, as they act on the sensorium, but as they appear also  
 “ in other parts of the system, particularly in the stomach, occa-  
 “ sioning a loss of appetite, and other symptoms of a weakened tone  
 “ in that organ.

“ With respect to this, it is to be observed, that persons who take  
 “ a great deal of snuff, though they seem, from the power of habit,  
 “ to escape its narcotic effects; yet as they are often liable to go to  
 “ excess in the quantity taken, so they are still in danger from these  
 “ effects operating in an insensible manner; and I have observed  
 “ several instances of their being affected in the same manner as  
 “ persons are from the long continued use of other narcotics, such as  
 “ wine and opium; that is, by a loss of memory, by a fatuity, and  
 “ other



“ other symptoms of the weakened or senile state of the nervous  
 “ system, induced before the usual period.

“ Among other effects of excess in snuffing, I have found all the  
 “ symptoms of dyspepsia produced by it, and particularly pains of the  
 “ stomach, occurring every day. The dependance of these upon the  
 “ use of snuff became very evident from hence, that upon an acci-  
 “ dental interruption of snuffing for some days, these pains did not  
 “ occur; but upon a return to snuffing, the pains also recurred; and  
 “ this alternation of pains of the stomach and of snuffing having  
 “ occurred again, the snuff was entirely laid aside, and the pains  
 “ did not occur for many months after, nor, so far as I know, for  
 “ the rest of life.

“ A special effect of snuffing is its exciting a considerable discharge  
 “ of mucus from the nose; and there have been several instances of  
 “ headaches, toothachs, and ophthalmias relieved by this means: and  
 “ this is to be particularly remarked, that when this discharge of  
 “ mucus is considerable, the ceasing or suppression of it by abstaining  
 “ from snuff, is ready to occasion the very disorders of headache,  
 “ toothach, and ophthalmia, which it had formerly relieved.

“ Another effect of snuffing to be taken notice of is, that as a part  
 “ of the snuff is often carried back into the fauces, so a part of this  
 “ is often carried down into the stomach, and then more certainly  
 “ produces the dyspeptic symptoms mentioned. These are the con-  
 “ siderations that relate to snuffing; and some of them will readily  
 “ apply to the other modes of using this drug.

“ Smoking, when first practised, shows very strongly the narcotic,  
 “ vomiting, and even purging powers of tobacco, and it is very often  
 “ useful as an anodyne; but by repetition these effects disappear, or  
 “ only show themselves when the quantity smoked is beyond what  
 “ habit had before admitted of; and even in persons much accustomed  
 “ to it, it may be carried so far as to prove a mortal poison. From  
 “ much smoking all the same effects may arise which we said might  
 “ arise from excess in snuffing.

“ With respect to the evacuation of mucus which is produced by  
 “ snuffing, there are analogous effects produced by smoking, which  
 “ commonly stimulates the mucous follicles of the mouth and fauces,  
 “ and particularly the excretories of the salivary glands. By the  
 “ evacuation

“ evacuation from both sources, with the concurrence of the narcotic  
 “ power, the toothach is often greatly relieved by it; but we have  
 “ not found the smoking relieve headaches and ophthalmias so much  
 “ as snuffing often does. Sometimes smoking dries the mouth and  
 “ fauces, and occasions a demand for drink; but, as commonly the  
 “ stimulus it applies to the mucous follicles and salivary glands draws  
 “ forth their liquids, it occasions on the other hand a frequent spitting.

“ So far as this is of the proper saliva, it occasions a waste of that  
 “ liquid so necessary in the business of digestion; and both by this  
 “ waste and by the narcotic power at the same time applied, the tone  
 “ of the stomach is often weakened, and every kind of dyspeptic  
 “ symptoms are produced. Though in smoking a great part of the  
 “ smoke is again blown out of the mouth, still a part of it must  
 “ necessarily pass into the lungs, and its narcotic power applied there  
 “ often relieves spasmodic asthma; and by its stimulant power it there  
 “ also sometimes promotes expectoration, and proves useful in the  
 “ catarrhal or pituitous difficulty of breathing.

“ Smoking has been frequently mentioned as a means of guarding  
 “ men against contagion. In the case of the plague, the testimony of  
 “ Diemerbroek is very strong; but Rivinus and others give us many  
 “ facts which contradict this: and Chenot gives a remarkable instance  
 “ of its inutility. We cannot indeed suppose that tobacco contains  
 “ an antidote of any contagion, or that in general it has any antiseptic  
 “ power; and therefore we cannot allow that it has any special use  
 “ in this case: but it is very probable that this and other narcotics,  
 “ by diminishing sensibility, may render men less liable to contagion;  
 “ and by rendering the mind less active and anxious, it may also  
 “ render men less liable to fear, which has so often the power of  
 “ exciting the activity of the contagion. The antiloimic powers of  
 “ tobacco are therefore on the same footing with those of wine,  
 “ brandy, and opium.

“ The third mode of using tobacco is that of chewing it, when it  
 “ shows its narcotic qualities as strongly as in any other way of ap-  
 “ plying it; though the nauseous taste of it commonly prevents its  
 “ being carried far in the first practice. When the practice, however,  
 “ is continued, as it is very difficult to avoid some part of it dissolved  
 “ in the saliva from going down into the stomach, so this, with the



“ nausea excited by the taste, makes vomiting more readily occasioned  
 “ by this than the other modes of applying it. They are the strong,  
 “ and even disagreeable impressions repeated, that give the most du-  
 “ rable and tenacious habits; and therefore the chewing of tobacco  
 “ is apt to become one of these: and it is therefore in this way that  
 “ it is ready to be carried to the greatest excess, and to show all the  
 “ effects of the frequent and large use of narcotics. As it commonly  
 “ produces a considerable evacuation from the mouth and fauces, so  
 “ it is the most powerful in relieving the rheumatic affection of  
 “ toothach. This practice is also the occasion of the greatest waste  
 “ of saliva; and the effects of this in weakening digestion, and perhaps  
 “ from thence especially, its noted effect of producing emaciation  
 “ may appear.

“ These are the effects of the different modes of employing tobacco,  
 “ when it comes to be of habitual use and an article of living. These  
 “ effects depend especially upon its narcotic power, and certain cir-  
 “ cumstances accidentally attending its application to the nose and  
 “ mouth: but as we have observed before, that beside its narcotic, it  
 “ possesses also a stimulant power, particularly with respect to the  
 “ alimentary canal: by this it is frequently employed as a medicine  
 “ for exciting either vomiting or purging, which it does as it happens  
 “ to be more immediately applied to the stomach or to the intestines.

“ An infusion of from half a dram to a dram of the dried leaves, or  
 “ of these as they are commonly prepared for chewing, for an hour  
 “ or two, in four ounces of boiling water, affords an emetic which has  
 “ been employed by some practitioners, but more commonly by the  
 “ vulgar only. As it has no peculiar qualities as an emetic, and its  
 “ operation is commonly attended with severe sickness, it has not been,  
 “ nor is it likely ever to come into common practice with physicians.

“ It is more commonly employed as a purgative in glysters; and,  
 “ as generally very effectual, it is employed in all cases of more  
 “ obstinate costiveness; and its powers have been celebrated by many  
 “ authors. I have known it to be in frequent use with some practi-  
 “ tioners; and it is indeed a very effectual medicine, but attended  
 “ with this inconvenience, that when the dose happens to be in any  
 “ excess, it occasions severe sickness at stomach; and I have known  
 “ it frequently occasion vomiting.



“ It is well known, that in cases of obstinate costiveness, in ileus  
 “ and incarcerated hernia, the smoke of burning tobacco has been  
 “ thrown into the anus with great advantage. The smoke operates  
 “ here by the same qualities that are in the infusions of it above  
 “ mentioned ; but as the smoke reaches much further into the intes-  
 “ tines than injections can commonly do, it is thereby applied to a  
 “ larger surface, and may therefore be a more powerful medicine  
 “ than the infusions. In several instances, however, I have been  
 “ disappointed of its effects, and have been obliged to have recourse  
 “ to other means.

“ The infusion of tobacco, when it is carried into the blood-vessels,  
 “ has sometimes shown its stimulant powers exerted in the kidneys ;  
 “ and very lately we have had it recommended to us as a powerful  
 “ diuretic of great service in dropfy. Upon the faith of these recom-  
 “ mendations we have now employed this remedy in various cases of  
 “ dropfy, but with very little success. From the small doses that are  
 “ proper to begin with, we have hardly observed any diuretic effects ;  
 “ and though from larger doses they have in some measure appeared,  
 “ we have seldom found them considerable : and when, to obtain  
 “ these in a greater degree, we have gone on increasing the doses,  
 “ we have been constantly restrained by the severe sickness at stomach,  
 “ and even vomiting, which they occasioned : so that we have not  
 “ yet learned the administration of this remedy so as to render it a  
 “ certain or convenient remedy in any cases of dropfy.

“ The same circumstances have occurred to several other practi-  
 “ tioners of this city and neighbourhood ; and of late the trials of it  
 “ have been very generally omitted, owing perhaps to our practitioners  
 “ being directed at the same time to the use of the digitalis, with which  
 “ they have had some more success.

“ From some experiments we are certain that tobacco contains a  
 “ quantity of volatile parts that may be dissipated by long boiling in  
 “ water ; and that by such a practice its emetic, purgative, and nar-  
 “ cotic qualities may be greatly diminished ; and we are of opinion  
 “ that the preparation in extract, as prescribed in the Wirtenberg  
 “ dispensatory, is upon a good foundation, and may be employed in  
 “ pectoral cases with more advantage and safety than the simple in-  
 “ fusion or decoction made by a short boiling only.

“ When

“ When we were restrained in employing the infusion of tobacco as a diuretic, as mentioned, we expected to succeed better with the decoction; and I have found, that by long boiling this might be given in much larger doses than the infusion: but we still found it retaining so much of the emetic quality, that we could not employ it as a diuretic without being interrupted in its use by the same emetic quality that had interrupted the use of the infusion.

“ Besides the internal uses of tobacco mentioned, I must now remark, that it has likewise been commended for its virtues as externally employed. I have known the infusion employed with advantage as a lotion for some obstinate ulcers: but the many instances of its being absorbed, and proving thereby a violent poison, dissuade from such a practice; especially as there are other medicines, of as much efficacy, that may be employed with much more safety. Bergius recommends it to be employed as a fomentation in the paraphymosis; but we have had no opportunity of employing it.” \*

\* The preceding quotation has completely anticipated what we have to offer upon the subject of Tobacco. Respecting its poisonous, or narcotic, effects, we shall subjoin the following references: — *Ephem. Nat. Cur. Dec. 2. Ann. 10. Obs. 131. p. 222.* we are told, that by the immoderate use of snuff, somnolency, and at length fatal apoplexy, was induced. *Hellwig Obs. Phys. Med. p. 45.* gives two instances of the same kind, occasioned by smoking 17 or 18 pipes of Tobacco. For the effects of Tobacco, by absorption from its external use, see *Eph. cit. Ann. 4. p. 46. et Ann. 2. Obs. 108. p. 262. Alston's M. M. vol. ii. p. 190.* The oil of Tobacco, applied to a wound, is said by Redi to be as fatal as the poison of a viper. See *Exp. Nat. p. 8. 50. 315.* Albinus however did not find that this was the case with the different animals on which he tried the experiment. *Diff. de Tobac. p. 11.* This oil, given to pigeons, produced fatal effects, and was constantly attended with vomiting. *Abbé Fontana. Vide Phil. Transf. vol. lxx.* Tobacco, taken by dogs, also produces vomiting. *Gesner. Epist. lib. ii. p. 79.* The smoke of Tobacco has been successfully used in the way of injection, by means of a proper instrument, for obstructions and inveterate constipations of the belly, ever since the time of Sydenham; and Haen, in his *Rat. Med.* gives several instances of its good effects: it is also recommended in cases of asphyxia, or, what has been termed, suspended animation.

ERRATUM. In the description of the calyx of the Tobacco-plant,  
read *half* the length of the corolla.

RICINUS COMMUNIS.







*Ricinus communis.*

Published by D<sup>r</sup> Woodville. Jan<sup>ry</sup> 1. 1791.

## RICINUS COMMUNIS.

## COMMON PALMA CHRISTI.

*SYNONYMA.* Ricinus. *Pharm. Lond. & Edinb. Gerard. Emac. p. 496.* Ricinus vulgaris. *Baub. Pin. 432. J. Baub. Hist. iii. p. 642.* Ricinus five Cataputia major vulgatiore. *Park. Theat. p. 182. Raii Hist. p. 166.* Ricinus 1. Fruticosus assurgens foliis majoribus peltato-lobatis, lobis ferratis acutis. *Browne's Jam. p. 350.* Ricinus Americanus fructu racemoso hispido, &c. *Sloane's Cat. 38.* The Oil nut tree. *Long's Jam. v. iii. p. 712.* Ricinus foliis peltatis inæqualiter ferratis, capsulis hispidis. *Miller, Figures of Plants, tab. 219.* In horto botanico Gottingensi tres exstant varietates: α, *glaucæ*, caule petiolis costisque foliorum stipulis pedunculis capsulisque *pallide rubris.* Ricinus ruber *RUMPH. Herb. Amb. tom. iv. p. 79.*; β, *nitens*, caule petiolis costis foliorum ceterisque partibus et summis foliis *sanguineis.* Ricinus lucidus *Jacquin. Misc. Austr. vol. ii. p. 360. et Icon. rarior. tab. 27. ut puto*; γ, *glaucæ* totaque *viridis* præter stylos rubicundos. Ricinus albus *RUMPH. l. c. p. 92.* Avanacœ f. Citavanacu. *Hort. Malab. tom. 2. p. 57. tab. 32.* Vide *Murr. App. Med. v. iv. p. 195.*

*Class* Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant. 1085.*

*Eff. Gen. Ch.* *MASC. Cal.* 5-partitus. *Cor.* 0. *Stam.* numerosa.

*FEM. Cal.* 3-partitus. *Cor.* 0. *Styli* 3, bifidi. *Caps.* 3 locul. *Sem.* 1.

*Sp. Ch.* R. foliis peltatis subpalmatis ferratis.

THE root is biennial, long, thick, whitish, and beset with many small fibres: the stem is round, thick, jointed, channelled, glaucous, of a purplish red colour towards the top, and rises luxuriantly six or eight feet in height: ‡ the leaves are large, and deeply divided into seven

‡ Long says that in Jamaica it grows with surprising rapidity to the height of fifteen or sixteen feet. l. c.



lobes or pointed serrated segments, of a bluish green colour: the footstalks are long, tapering, purplish, and inserted in the disc of the leaf (peltated): the flowers are male and female on the same plant, and produced in a clustered terminal spike: the *male flowers* are without a corolla, and consist of a calyx, divided into five oval pointed purplish segments, enclosing numerous long stamina, which unite at the base: the *female flowers* occupy the upper part of the spike, and have the calyx cut into three narrow segments, of a reddish colour: the styles are three, slender, and forked at the apex: the capsule is a large three-celled nut, covered with tough spines, and contains three flattish oblong seeds, || which are forced out on the bursting of the capsule. It is a native of both the Indies, and flowers in July and August.

This plant appears to be the *κικι*, or *κερω* of Dioscorides,<sup>a</sup> who observes that the seeds are powerfully cathartic; † it is also mentioned by Ætius, Paulus Ægineta, and Pliny. The Ricinus was first cultivated in England in the time of Turner,<sup>b</sup> (1562) and is now annually reared in many gardens in the neighbourhood of London; and in that of Dr. Saunders,<sup>c</sup> at Highbury, the plant from which the

|| Hujus cuilibet loculo inest nux ovata, utrinque compressa, interiori præcipue superficie, quæ et linea longitudinali distinguitur, magnitudine seminis Phaseoli minoris flore phœniceo, hilo prominente sursum notato, cui callus ante adhæserat. Cortex ex bruno luteoque variegatus, fragilis, cingit nucleum album, vestitum cuticula tenella concolore—Figuræ seminis cum insecto Ricino (Acaro Ricino L.) bobus & canibus infesto, similitudo ansem denominationis totius plantæ dedit. *Murr. Ap. Med. vol. iv. p. 197.*

<sup>a</sup> *Mat. Med. lib. 4. cap. 164.*

† Their violent and irritating effects in this way are noticed by almost all the *Materia Medica* writers, and seem to be confirmed by Thunberg, (*Diff. de Medicina Africanorum*, p. 4. and *Browne*, (*l. c.*). This acrimony however appears from later experiments to be owing to the membranes which invest the kernel, (*vide Heyer in Crells n. chem. Entdeck. P. 2. p. 47.* Also *Glendenberg in ejusd. chem. Annal. 1785. vol. ii. p. 34.*) Bergius says, “Semen unicum Ricini vulgaris, tempore vespertino, a viro sano & vegeto masticatum & deglutitum, sapore fuit amygdalarum, sed sensationem mordentem in faucibus reliquit. Per totam noctem tranquille dormivit hic vir; sed sequente die mane expergefactus, emesi violentia correptus fuit atque per totam diem sustinuit nifus alternantes vomituritionis & purgationis alvi, tametsi parum deiciebat. Eadem vice nobilis matrona teneræ constitutionis, semen unicum pariter comedit, sed prius testam membranamque obvelantem sedulo separavit abjecitque; & nullam noxam inde sensit.” *M. M. p. 774.*

<sup>b</sup> *Vide Hort. Kew.*

<sup>c</sup> From the number of seeds which the Doctor has lately procured from different parts of the globe, and his scientific and solicitous care in their cultivation, we are induced to hope, that Medical Botany, under such auspices, will eventually receive considerable illustration.

present



present figure was taken, it grew to a state of great perfection. An oil extracted from the seeds<sup>d</sup> of this plant, and known by the name of oleum ricini, Palma Christi, or castor oil, is the drug to which the pharmacopœias refer, and which has lately come into frequent use as a quick, but gentle, purgative. The London College direct this oil to be expressed from the seeds in the same way as that of almonds,<sup>e</sup> and without the assistance of heat, by which the oil would seem to be obtained in the purest state: however, we have some reason to believe that this method is seldom practised, and that the oil usually employed here is imported from the West-Indies, where it is commonly prepared in the following manner: “ The seeds being freed from the husks, or pods, which are gathered upon their turning brown, and when beginning to burst open, are first bruised in a mortar, afterwards tied up in a linnen bag, and then thrown into a large pot, with a sufficient quantity of water, (about eight gallons to one gallon of the seeds) and boiled till the oil is risen to the surface, when it is carefully skimmed off, strained, and kept for use. Thus prepared, the oil is entirely free from acrimony, and will stay upon the stomach when it rejects all other medicines.” And Mr. Long remarks, that “ the oil intended for medicinal use is more frequently cold-drawn, or extracted from the bruised seeds by means of a hand-press. But this is thought more acrimonious than what is prepared by coction.”<sup>f</sup> Dr. Browne is also of this opinion, and prefers the oil procured by

<sup>d</sup> Where the oil is rejected, the seeds may be carefully separated from their shells and the inner white membrane, and formed into an emulsion, and given as an agreeable substitute for the oil.

<sup>e</sup> Some objection has been made to this manner of obtaining the oil, as stated in our pharmacopœia, which we shall here mention in the words of Murray: *Expressione si eliceatur oleum, quidam suadent decorticati seminis præviam conquassationem in mortario, (Canvane Diff. on the Oleum Palmæ Christi, &c. p. 20,) sed inde ob mucilaginis evolutionem, quæ simul contingit crassum & turbidum evadit oleum (quod bene adjecit Bonelli in versione libri cl. Canvane. p. 63. Glendenberg l. c. p. 32), nec nisi difficulter eruitur. Præstat igitur nucleos integros premere. Facilius quoque evocatur oleum ex seminibus, quæ moram aliquam traxerunt, quam ex recentibus; mucilago enim sensim siccior evadere videtur, tumque connubium suum cum oleo relaxare.” (Heyer in Crells Entd. P. 3. p. 74.) l. c.*

<sup>f</sup> Long's *Jamaica*, p. 713. It is well known however, that the oil obtained by boiling becomes much sooner rancid than that by expression. The best oil is limpid, and destitute of taste or smell. In the West Indies it is usually consumed in lamps, and for other domestic purposes.

coction

coction to that by expression ; he attributes its greater mildness to the action of the fire, observing that the expressed oil, as well as the mixed juices of the seeds, are far more active and violent in their operations.<sup>g</sup> Dr. Cullen observes, that “ this oil, when the stomach can be reconciled to it, is one of the most agreeable purgatives we can employ. “ It has this particular advantage, that it operates sooner after its “ exhibition than any other purgative I know of, as it commonly “ operates in two or three hours. It seldom gives any griping, and “ its operation is generally moderate, to one, two, or three stools only. “ It is particularly suited to cases of costiveness, and even to cases of “ spasmodic cholera. In the West Indies it is found to be one of the “ most certain remedies in the dry-belly ach, or colica pictonum.<sup>h</sup> “ I have never found it heating or irritating to the rectum, and there- “ fore have found it sufficiently well suited to hæmorrhoidal persons. “ The only inconvenience attending the use of this medicine is, that “ as an oil it is nauseous to some persons ; and that, when the dose is “ large, it occasions sickness at the stomach for some time after it is “ taken. To obviate these inconveniences, several means have been “ tried ; but I shall not detail these here, as I can assert, that the most “ effectual means is the addition of a little ardent spirit. For this in “ the West Indies they employ rum ; but that I might not withdraw “ any part of the purgative, I employ the tinctura fennæ composita. “ This, added in the proportion of one to three parts of the oil, and “ very intimately mixed by their being shaken together in a phial, “ both makes the oil less nauseous to the taste, and makes it sit more “ easy on the stomach. The common dose of this oil is a table- “ spoonful, or half an ounce ; but many persons require a double “ quantity.”<sup>i</sup>

<sup>g</sup> L. c. But this is better explained under note †

<sup>h</sup> We may add, that it has been experienced to be an useful medicine in various febrile complaints, and in bilious cholics, nephritic cases, worms, especially the tape-worm.

<sup>i</sup> *M. M.* vol. 2. p. 563, Dr. Cullen remarks, “ It is particularly to be observed of this medicine, that if it be frequently repeated, the dose of it may be gradually more and more diminished. And I know instances of persons who, formerly of a costive habit, at first required half an ounce or more for a dose ; but after being frequently repeated, they now find that two drams are enough, at least to keep the belly regular.”

CLEMATIS RECTA.







*Clematis recta*

Published by D<sup>r</sup> Woodville Jun<sup>r</sup> 1 1791

## CLEMATIS RECTA.

## UPRIGHT VIRGIN'S BOWER.

---

*SYNONYMA.* Flammula Jovis. *Pharm. Edinb.* Flammula recta. *Baub. Pin. p.* 300. Clematis five Flammula surrecta alba. *J. Baub. Hist. vol. ii. p.* 127. Flammula Jovis surrecta. *Gerard. Emac. p.* 888. *Park. Theat. p.* 382. *Raii Hist. p.* 621. *sp.* 4. Clematis caule erecto, foliis pinnatis ovato-lanceolatis. *Hal. Stirp. Helv. n.* 1144. *Flor. Aust. tab.* 291. *Stoerck Libell. de Flam. Jovis, tab.* 1.

*Class* Polyandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 696.

*Eff. Gen. Ch.* *Cal.* 0. *Petala* 4—6. *Sem.* caudata.

*Sp. Ch.* C. foliis pinnatis: foliolis ovato-lanceolatis integerrimis, caule erecto, floribus pentapetalis tetrapetalisque.

THE root is perennial, white, and fibrous: the stalk is erect, scored, round, smooth, branched towards the top, and rises about two feet in height: the leaves are opposite, and pinnated, the pinnæ are placed in pairs, and terminated by an odd one; they are all ovally lance-shaped, acute, entire, smooth, and veined. The flowers terminate the stem and branches in irregular umbels: there is no calyx: the petals are four or five, of an oval shape, and whitish colour: the filaments are numerous, erect, tapering, shorter than the petals, and terminated by the antheræ, which are scored on each side: the germina are many, roundish, hairy, and support bearded styles, of the length of the stamina, and crowned with obtuse stigmata: the seeds are roundish, compressed, and attached to the styles, which appear like long feathered tails; and hence the name, *sem. caudata*.

This plant is a native of Hungary, Austria, and France, and flowers from June till August: it was first cultivated in England by Gerard, previous to the year 1597, and is now sufficiently known to the



British gardeners. This, like some other species of the clematis, is extremely acrid, and hence the name *Flammula*. The recent leaves, upon being chewed, excite a burning heat of the tongue and fauces, and if retained long in the mouth, produce blisters and ulceration; but, by drying, this acrimony is considerably diminished: the flowers likewise possess a share of acrimony, though in a less degree. The *Flammula Jovis*, although mentioned by Dale and some others as an external remedy, was first recommended to the attention of practitioners by Baron Stoerck in 1769, as an useful medicine in many obstinate complaints. ‡ He published several cases of its successful exhibition, particularly in inveterate syphilitic diseases producing headaches, pains in the bones, nodes, ulcers, cutaneous affections, &c.\*

Whether this plant really deserves the character which the Baron has thus attempted to establish, by stating its uniform success in twenty-two cases out of twenty-four, in which it was tried, rests solely upon his own authority; and it is with concern we observe, that the medical facts at Vienna are not very confidently received by the physicians in this country. It was usual for Dr. Stoerck to employ the leaves and flowers, as well as an extract prepared from the former, yet the preparation which he chiefly recommends is an infusion of two or three drams of the leaves in a pint of boiling water; of which he gave four ounces three times a day, while the powdered leaves were applied as an escharotic to the ulcers.

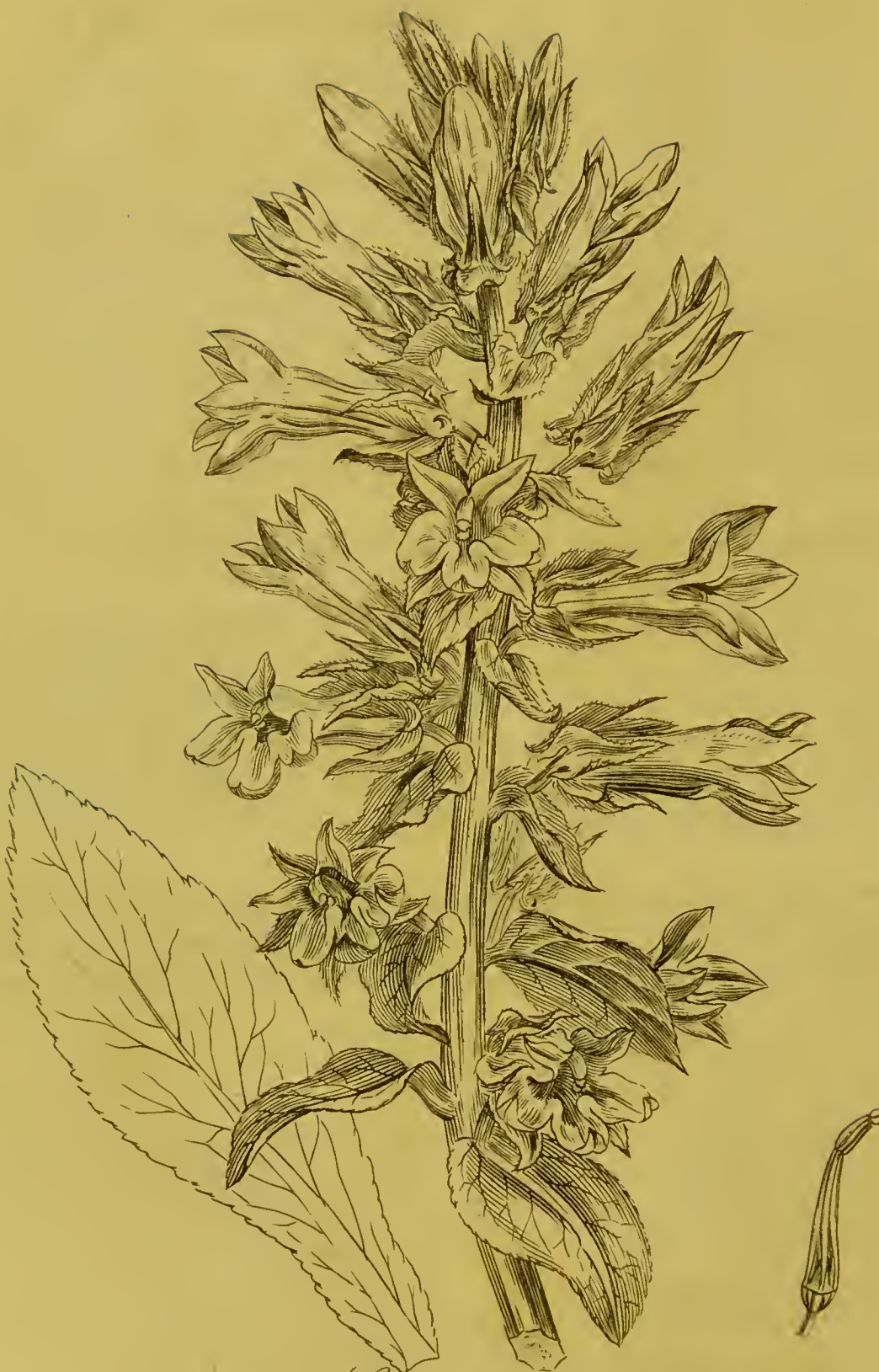
‡ Although these were principally venereal, yet in ulcers, cancers, and severe headaches, not proceeding from this cause, the *Flammula Jovis* is said to have been likewise successful; and in his *Lib. de Pulsat.* p. 57. we are told of its remarkable efficacy in a case of *melancholia tristissima*. It generally acted as a diuretic or diaphoretic.

\* Vide *Libell. de Flammula Jovis*.

LOBELIA SIPHILITICA.







*Lobelia siphilitica.*

Published by Dr. Woodville, Jan<sup>y</sup> 1. 1791.

## LOBELIA SIPHILITICA.

BLUE LOBELIA; Or,  
CARDINAL-FLOWER.

---

*SYNONYMA.* Lobelia. *Pharm. Edinb.* Rapunculus Americanus, flore dilute cæruleo. *D. Dodart Memoires, &c.* p. 297. Rapunculus galeatus virginianus, flore violaceo majore. *Morrison Hist. t. ii. p.* 466. Lobelia siphilitica caule erecto lævi, foliis lato lanceolatis ferratis *incisis* utrinque acuminatis, floribus cæruleis. *Walter Flora Carolin. p.* 218. Conf. Kalmii descriptio largior in *K. Vet. Acad. Handl. p.* 284. and *Bartram's Appendix, containing descriptions, virtues, and uses of sundry plants, &c.*

*Class* Syngenesia. *Ord.* Monogamia. *Lin. Gen. Plant.* 1006.

*Eff. Gen. Ch.* Cal. 5-fidus. Corolla 1-petala, irregularis. Capsula infera, 2—f. 3-locularis.

*Sp. Ch.* Caule erecto, foliis ovato-lanceolatis subserratis, calycum sinubus reflexis.

THE root is perennial, and furnished with many white fibres: the stem is upright, strong, simple, smooth, and rises upwards of two feet in height: the leaves placed towards the top of the stem, are oval and pointed; those at the bottom are elliptical, and obtusely lance-shaped; they are both minutely serrated, veined, smooth, and without footstalks: the flowers are numerous, large, blue, and grow in a long spike, upon short peduncles: the corolla consists of a long tube, which is nearly cylindrical, and divided at the limb into five pointed oval segments, of a rich blue colour: the calyx is composed of five halberd-shaped leaves, which are fringed at the margin, and reflected at each side: the filaments are five, tapering, equal in length to the tube of the corolla, and closely connected at the top by the antheræ: the germen is short and conical: the style is of the length of the



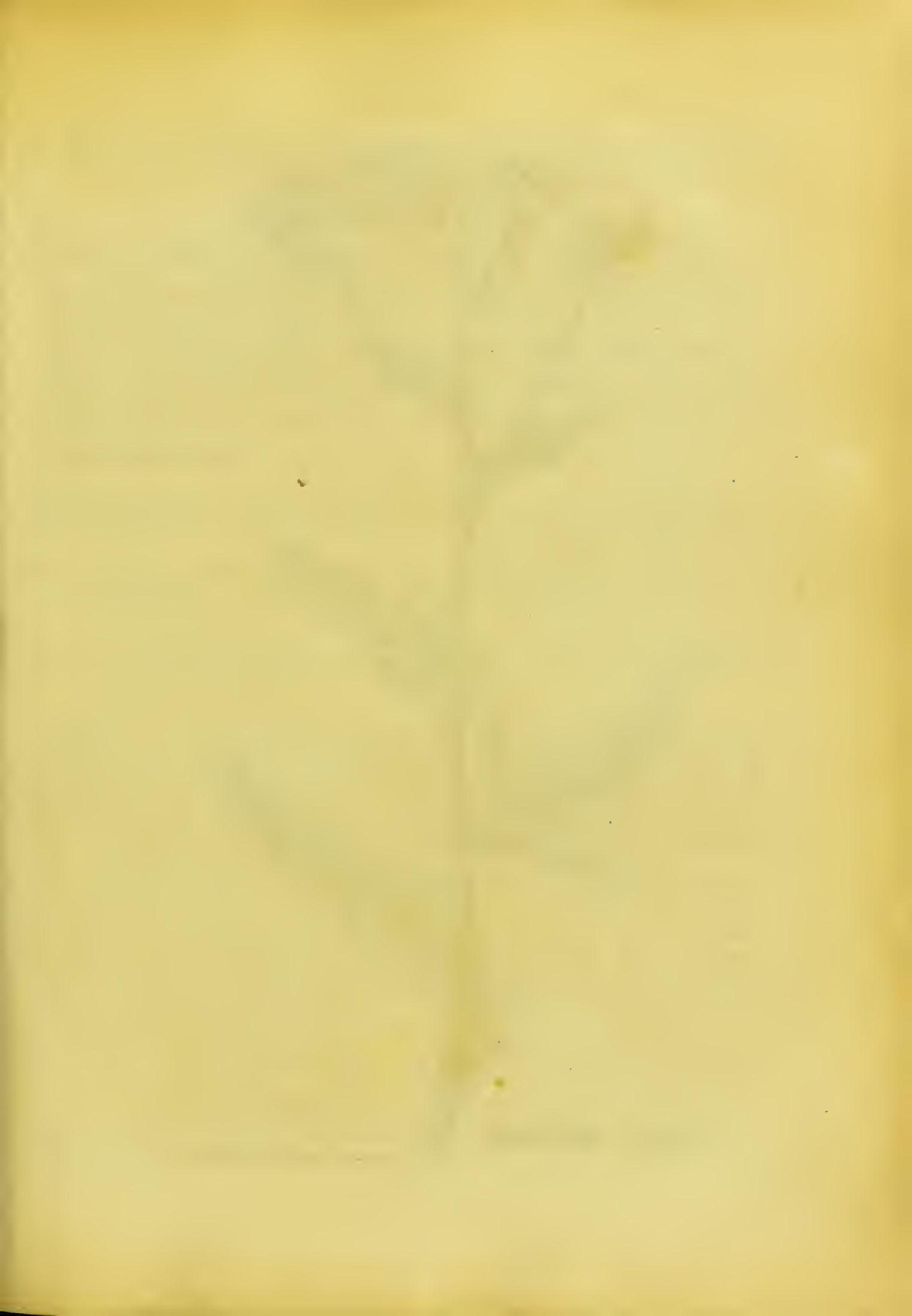
the stamina, and terminated by a blunt hairy stigma: the capsule is oval, and divided into two cells, which contain many small seeds. It is a native of Virginia, and flowers from August till October.

Rea is the first English botanist to whom Mr. Aiton ascribes the cultivation of this species of the *Lobelia*, and, as a handsome plant, it is now in the possession of many of our gardeners. Every part of the plant abounds with a milky juice, and has a rank smell. The root, which is the part directed for medicinal use, in taste resembles tobacco, and is apt to excite vomiting. It derived the name *siphilitica* from its efficacy in the cure of syphilis, as experienced by the North American Indians, who considered it a specific in that disease, and with whom it was long an important secret. This secret was purchased by Sir William Johnson, and since published by different authors.<sup>a</sup>

The method of employing this medicine is stated as follows: A decoction is made of a handful of the roots in three measures of water. Of this, half a measure is taken in the morning fasting, and repeated in the evening; and the dose is gradually increased till its purgative effects become too violent, when the decoction is to be intermitted for a day or two, and then renewed till a perfect cure is effected. During the use of this medicine, a proper regimen is to be enjoined, and the ulcers are also to be frequently washed with the decoction, or if deep and foul, to be sprinkled with the powder of the inner bark of the New Jersey Tea-tree (*Ceanothus Americanus*.) Although the plant thus used is said to cure the disease in a very short time, yet we do not find that the antisyphilitic powers of the *Lobelia* have been confirmed by any instances of European practice.

<sup>a</sup> Kalm. l. c. Bartram. l. c.

ACHILLEA MILLEFOLIUM.





*Achillea Millefolium.*

Published by D<sup>r</sup> Woodville Jan<sup>y</sup> 1 1791.



ACHILLEA MILLEFOLIUM. COMMON YARROW;  
Or, MILFOIL.

---

*SYNONYMA.* Millefolium. *Pharm. Edinb.* Millefolium vulgare album. *Baub. Pin. p.* 140. Millefolium terrestre vulgare. *Gerard. Emac. p.* 1072. Millefolium vulgare. *Park. Theat. p.* 693. *Raii Hist. p.* 345. *Synop. p.* 183. Achillea foliis pinnatis, pinnis longe æqualibus, pinnatis, pinnulis trifidis et quinquefidis. *Hal. Stirp. Helv. n.* 107. *A. M. Withering. Bot. Arrang. p.* 941. *Curtis Flor. Lond.*

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 971.

*Eff. Gen. Ch.* Recept. paleaceum. *Pappus* nullus. *Cal.* ovatus imbricatus. *Flosculi* radii circiter quinque.

*Sp. Ch.* A. foliis bipinnatis nudis, laciniis linearibus dentatis; caulibus superne fulcatis.

THE root is perennial, creeping, round, and furnished with many whitish fibres:<sup>a</sup> the stalk is upright, round, towards the bottom smooth and downy, but near the top it is slightly grooved, woolly, branched, and rises above a foot in height: the leaves stand alternately upon the stem, which they partly embrace, and are bipinnated or subdivided into a double series of pinnæ: the pinnulæ are numerous, narrow, and somewhat pointed: the flowers are white, or tinged with purple, and terminate the stem in a close corymbus: the bractæ are small, pinnatifid, and placed at the peduncles: the calyx is ovate, downy, imbricated with concave oval scales, which are membranous, and fringed at the margins: the corolla is compound, and radiated; at the *disc* the florets are about twelve, hermaphrodite, funnel-shaped, of the length of the calyx, consisting of a long yellowish tube, divided

<sup>a</sup> Dr. Grew observes, that the fresh young roots have a glowing warm taste, approaching to that of Contrayerva, and thinks they might in some measure supply its place.—*On Tastes, chap. 5. §. 2.*

at the limb into five short segments : at the *radius* the florets are female, usually five, flat, spreading, roundish, cut at the apex into three teeth, and furnished with a cylindrical, greenish, striated tube, which is about the length of the calyx : the filaments are five, short, and slender : the antheræ are yellow, and unite into a cylindrical tube : the germen is oblong, compressed, and supports a filiform style, divided into two reflexed stigmata. It is common in dry pastures, and flowers from July till October.

The leaves and flowers of this plant have an agreeable weak aromatic smell, and a bitterish, rough, and somewhat pungent taste. “ The virtue of both is extracted by watery and spirituous menstrua ; the astringency most perfectly by the former ; their aromatic warmth and pungency by the latter ; and both of them equally by a mixture of the two. The flowers, distilled with water, yield a penetrating essential oil, possessing the flavour of the Milfoil in perfection, though rather less agreeable than the flowers themselves.” \*

This plant appears to be the *Στεφάνωτης χιλιόφυλλος* || of the Greek writers, by whom it was esteemed an excellent vulnerary † and styptic, and was generally employed internally as an useful astringent in all hæmorrhagic complaints. Instances of its good effects in this way <sup>b</sup> are likewise mentioned by several of the German physicians, particularly, by Stahl and Hoffman, <sup>c</sup> who also recommend it as an efficacious remedy in various other diseases : the former found it not only an astringent, but also a powerful tonic, antispasmodic, and sedative. In proof of the last mentioned quality, we may remark, that in some parts of Sweden it is used in making beer, in order to render it more intoxicating ; and Sparrman has observed, that it is employed for this purpose in some parts of Africa. The leaves and flowers of Milfoil are both directed for medicinal use in the Edinburgh Pharm. in the present practice however this plant, we believe, is wholly neglected.

\* Vide Lewis's M. M. p. 424. || Vide Stratiotes, *Matthiol. in Dioscorid.*

† *Vulneraria* insuper habetur sub externo usu, jam ab Achille, ut ferunt, sanatione vulnerum subjectorum sibi militum, auctorato. Murray App. Med. vol. i. p. 167.

<sup>b</sup> Hæmoptysis, Epistaxis, Menorrhagia, et Hæmorrhoids.

<sup>c</sup> Stahl *Diff. de Therap. pass. hypoc.* Hoffman, *De præst. rem.* §. 18.

<sup>d</sup> Vide Linn. *Flor. Succ.* p. 299.

HYSSOPUS OFFICINALIS.







*Hyssopus officinalis.*

Published by D<sup>r</sup> Woodville. Jan. 7 1. 1791.

## HYSSOPUS OFFICINALIS. COMMON HYSSOP.

*SYNONYMA.* Hyssopus. *Pharm. Edinb.* Hyssopus Officinarum cærulea five spicata. *Baub. Pin. p.* 217. Hyssopus vulgaris. *Park. Theat.* Hyssopus Arabum. *Gerard. Emac. p.* 576. Hyssopus vulgaris spicatus angustifolius. *J. Baub. Hist. iii. p.* 274. *Raii Hist. p.* 516. Hyssopus foliis linearibus punctatis, verticillis in spica continuatis. *Hal. Stirp. Helv. n.* 249. *Jacquin Flor. Aust. t.* 254.

*VARIETATES* sunt,  $\alpha$  foliis glabris, floribus cæruleis:  $\beta$  foliis glabris, floribus rubris:  $\gamma$  foliis glabris, floribus albis:  $\delta$  foliis pilosis. *Aiton's Hort. Kew.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 709.

*Eff. Gen. Ch.* Corollæ labium inferius lacinula intermedia crenata. *Stamina* recta, distantia.

*Sp. Ch.* H. spicis secundis, foliis lanceolatis.

THE root is perennial, knobbed, woody, and furnished with many long fibres: the stalk is shrubby, somewhat square, upright, much branched, and rises about two feet in height: the leaves are long, narrow, elliptical, entire, obtusely pointed, of a deep green colour, and stand in pairs without footstalks: the flowers are produced chiefly on one side, in short verticillated spikes, terminating the branches, and are of a blue colour: the calyx is tubular, striated, and divided at the extremity into five pointed segments: the corolla is monopetalous, and consists of a narrow tube, which divides at the limb into two expanded lips; the uppermost is short, roundish, and notched at the apex; the lowermost is separated into three segments, of which the undermost is very large, and inversely heart-shaped: the filaments are four, two long and two short, and crowned with simple antheræ: the style is slender, and divided at the top into a double stigma: the germen is separated into four parts or seeds, which are lodged at the  
bottom

bottom of the calyx. It is a native of Siberia, and the mountainous parts of Austria, and flowers from June till September.

The Hyssop, mentioned in the Old Testament, is not supposed to be the plant here described, which is neither the *Esof* of the Hebrews, nor the *ύσσωπος* of the Greeks.<sup>a</sup> It was first cultivated in England by Gerard,\* in 1596, and is now extremely common in our gardens. "The leaves of Hyssop have an aromatic smell, and a bitterish moderately warm taste. They give out their active matter both to water and to rectified spirit; to the last most perfectly. On inspissating the spirituous tincture, very little of the flavour of the herb exhales or distills with the menstruum: the remaining extract is bitterish, and very warm, and discovers a penetrating pungency, somewhat like that of camphor. Water, distilled from the fresh herb, is found pretty strongly impregnated with its flavour: an essential oil separates and rises to the surface, which is very pungent, and in smell exactly resembles the Hyssop."<sup>b</sup>

Dr. Cullen classes this and all the verticillated plants as stimulants, and this quality is to be ascribed to the quantity of essential oil which they contain; the Hyssop therefore may be esteemed aromatic and stimulant; and with a view to these effects, Bergius recommends it as an emmanagogue and antihysterical;<sup>c</sup> but it is chiefly employed as a pectoral, and has been long thought an useful medicine in humeral asthmas, coughs, & catarrhal affections; for this purpose, an infusion of the leaves, sweetened with honey or sugar, and drank as tea, is recommended by Lewis. The external application of Hyssop is said to be particularly efficacious in the way of fomentation and poultice, in contusions, and for removing the blackness occasioned by the extravassated fluids.<sup>d</sup>

<sup>a</sup> Vide Le Clerc's Hist. p. 626. cited by Alston, who says, I shall only take notice that *καλαμος* in St. Matthew's Gospel, chap. xxvii. ver. 48. is *ύσσωπος* in St. John's, chap. xix. ver. 29. Probably it is the *Zuse* or *cyfe*, i. e. Hyssop of the Arabians. Lect. on the M. M. v. ii. p. 152.

\* Vide *Hort. Kew.*

<sup>b</sup> Lewis M. M. p. 348.

<sup>c</sup> M. M. p. 512.

<sup>d</sup> All the old writers praise it highly in this respect: Nec excluduntur sugillationes oculorum quibus herba intra sacculum aqua vel vino decocta clausis palpebris subvenit. *Riolan.* and *Sim. Pauli.*

It is also recommended as a vermifuge by Rosenstein. *Barns jukd.* p. 358.



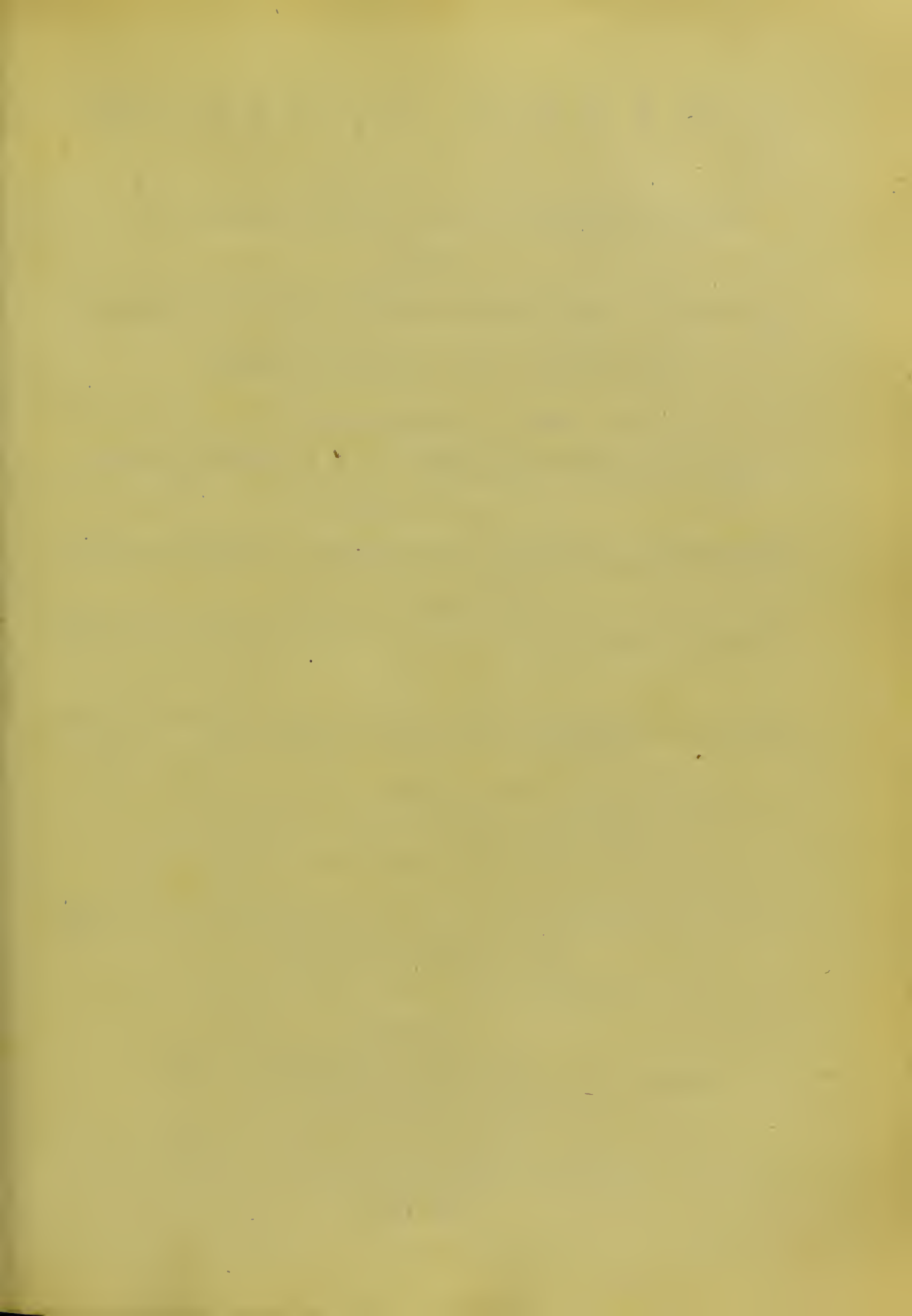
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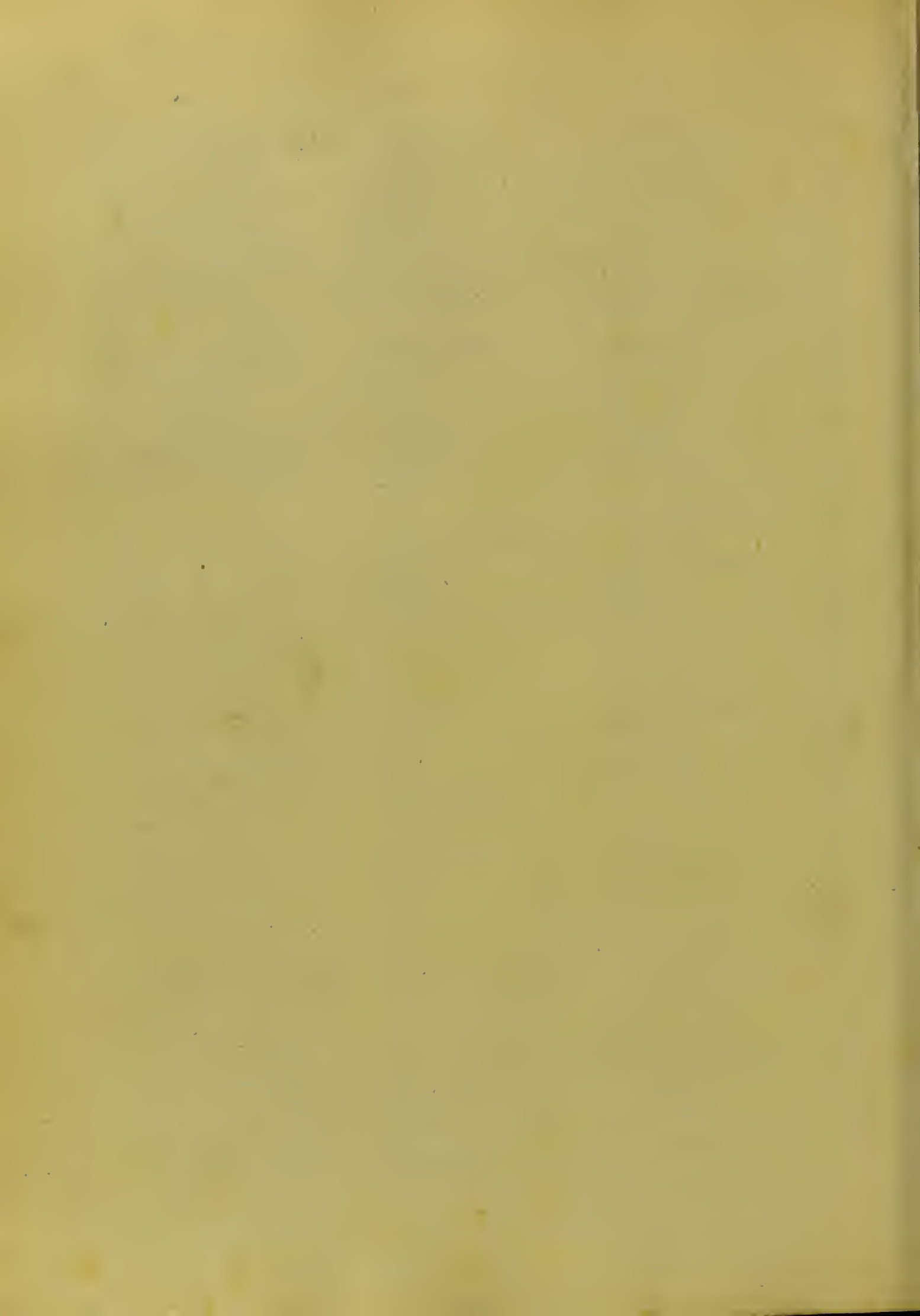
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# M E D I C A L   B O T A N Y,

CONTAINING

SYSTEMATIC AND GENERAL DESCRIPTIONS,

W I T H

PLATES OF ALL THE MEDICINAL PLANTS,  
INDIGENOUS AND EXOTIC,

COMPREHENDED IN THE

CATALOGUES OF THE MATERIA MEDICA,

AS PUBLISHED BY THE

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND EDINBURGH:

ACCOMPANIED WITH A

CIRCUMSTANTIAL DETAIL OF THEIR MEDICINAL EFFECTS,

AND OF THE

DISEASES IN WHICH THEY HAVE BEEN MOST SUCCESSFULLY EMPLOYED.

By WILLIAM WOODVILLE, M. D.

FELLOW OF THE LINNEAN SOCIETY,

OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON,

A N D

PHYSICIAN TO THE SMALL-POX AND INOCULATION HOSPITALS.

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I N   T H R E E   V O L U M E S.

VOL. II.

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*et herbarum subiecta potentia nobis.*

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S I R,

*Not only Friendship and Gratitude,  
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for, as the first Volume of this Work, which relates both  
to Medicine and Botany, has been honoured by the Patronage  
of the President of the Royal College of Physicians, I am  
happy to find a Botanical Patron, to do equal Honour to  
the second Volume, in the President of the Linnean Society.*

*I have the honour to be  
With the utmost respect and esteem,  
Your faithful Servant,*

WM. WOODVILLE.

PENTONVILLE,

February 20th, 1792.



# C A T A L O G U E II.

In which all the PLANTS composing the MATERIA MEDICA, as referred to by the COLLEGES of LONDON and EDINBURGH, are arranged according to their Botanical Affinities or Natural Orders, adopted by Professor MURRAY.

## I. CONIFERÆ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Pinus sylvestris</i>	Scotch Fir	Pix liquida
— <i>Picea</i>	Silver Fir Tree	Terebinthina vulgaris
— <i>Abies</i>	Norway Spruce Fir Tree	Pix Burgundica
— <i>Larix</i>	Common White Larch Tree	Terebinthina veneta
<i>Juniperus communis</i>	Common Juniper	Juniperus
— <i>Lycia</i>	Olibanum Juniper	Olibanum, <i>gummi resina</i>
— <i>Sabina</i>	Common Savin	Sabina

## II. AMENTACEÆ.

<i>Salix fragilis</i>	Crack Willow	Salix
<i>Juglans regia</i>	Common Walnut Tree	Juglans
<i>Quercus Robur</i>	Common Oak Tree	Quercus
<i>Pistacia Terebinthus</i>	Common Turpentine Tree	Terebinthina chia
— <i>Lentiscus</i>	Common Mastich Tree	Mastiche

## III. COMPOSITÆ.

<i>Arctium Lappa</i>	Common Burdock	Bardana
<i>Centaurea benedicta</i>	Holy Thistle	Carduus benedictus
<i>Leontodon Taraxacum</i>	Common Dandelion	Taraxacum
<i>Artemisia Abrotanum</i>	Common Southernwood	Abrotanum
— <i>Absinthium</i>	Common Wormwood	Absinthium
— <i>vulgaris</i>	Common Mugwort	Artemisia
— <i>maritima</i>	Sea Wormwood	Absinthium maritimum
— <i>Santonica</i>	Tartarian Wormwood	Santonicum
<i>Tanacetum vulgare</i>	Common Tanfy	Tanacetum
<i>Tussilago Farfara</i>	Colt's Foot	Tussilago
<i>Anthemis nobilis</i>	Common Camomile	Chamæmelum
— <i>Pyrethrum</i>	Pellitory of Spain	Pyrethrum
<i>Inula Helenium</i>	Elecampane	Enula campana
<i>Arnica montana</i>	Mountain Arnica	Arnica
<i>Achillea Millefolium</i>	Common Yarrow	Millefolium.



## C A T A L O G U E.

## IV. A G G R E G A T Æ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Valeriana officinalis</i>	Officinal Valerian	<i>Valeriana sylvestris</i>

## V. C O N G L O M E R A T Æ.

<i>Plantago major</i>	Great Plantane	<i>Plantago</i>
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## VI. U M B E L L A T Æ.

<i>Eryngium maritimum</i>	Sea Eryngo	<i>Eryngium</i>
<i>Daucus Carota</i>	Wild Carrot	<i>Daucus sylvestris</i>
<i>Conium maculatum</i>	Common Hemlock	<i>Cicuta</i>
<i>Ferula Assa fœtida</i>	Asafoetida Gigantic Fennel	<i>Asafoetida, gummi resina</i>
<i>Angelica Archangelica</i>	Garden Angelica	<i>Angelica</i>
<i>Bubon Galbanum</i>	Lovage-leaved Bubon	<i>Galbanum, gummi resina</i>
<i>Cuminum Cymyrum</i>	Cumin	<i>Cuminum</i>
<i>Coriandrum sativum</i>	Common Coriander	<i>Coriandrum</i>
<i>Sium nodiflorum</i>	Creeping Water Parsnep	<i>Sium</i>
<i>Imperatoria Ostruthium</i>	Common Masterwort	<i>Imperatoria</i>
<i>Pastinaca Opopanax</i>	Rough Parsnep	<i>Opopanax, gummi resina</i>
<i>Anethum graveolens</i>	Common Dill	<i>Anethum</i>
———— <i>Fœniculum</i>	Common Fennel	<i>Fœniculum</i>
<i>Carum Carui</i>	Common Carraway	<i>Caruon</i>
<i>Pimpinella Saxifraga</i>	Small Burnet Saxifrage	<i>Pimpinella</i>
———— <i>Anisum</i>	Anise	<i>Anisum</i>
<i>Apium Petroselinum</i>	Common Parsley	<i>Petroselinum</i>

## VII. H E D E R A C E Æ.

<i>Vitis vinifera</i>	Common Vine	<i>Vitis</i>
<i>Panax quinquefolium</i>	Ginseng	<i>Ginseng</i>

## VIII. S A R M E N T A C E Æ.

<i>Smilax Sarsaparilla</i>	Sarsaparilla Smilax	<i>Sarsaparilla</i>
<i>Cissampelos Pareira</i>	Pareira brava Cissampelos	<i>Pareira brava</i>
<i>Aristolochia Serpentaria</i>	Snakeroot Birthwort	<i>Serpentaria virginiana</i>
———— <i>clematitis</i>	Upright Birthwort	<i>Aristolochia tenuis</i>
<i>Asarum europæum</i>	Asarabacca	<i>Asarum</i>

## IX. S T E L L A T Æ.

<i>Rubia tinctorum</i>	Dyer's Madder	<i>Rubia tinctorum</i>
<i>Spigelia marilandica</i>	Perennial Worm-grass	<i>Spigelia marilandica</i>

# C A T A L O G U E.

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## X. C Y M O S Æ.

## XI. C U C U R B I T A C E Æ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Cucumis Colocynthis</i>	Bitter Cucumber	Colocynthis
<i>Momordica Elaterium</i>	Wild Cucumber	Cucumis agrestis
<i>Bryonia alba</i>	White Briony	Bryonia

## XII. S A L O N A C E Æ.

<i>Solanum Dulcamara</i>	Woody Nightshade	Dulcamara
<i>Atropa Belladonna</i>	Deadly Nightshade	Belladonna
<i>Hyoscyamus niger</i>	Black Henbane	Hyoscyamus
<i>Datura Stramonium</i>	Common Thorn Apple	Stramonium
<i>Nicotiana Tabacum</i>	Tobacco	Nicotiana
<i>Capficum annuum</i>	Annual Capficum	Piper indicum
<i>Verbascum Thapsus</i>	Common Mullein	Verbascum
<i>Digitalis purpurea</i>	Common Foxglove	Digitalis

## XIII. C A M P A N A C E Æ.

<i>Convolvulus Scammonia</i>	Scammony Bindweed	Scammonium
————— <i>Jalappa</i>	Jalap Bindweed	Jalapium
<i>Lobelia siphilitica</i>	Blue Lobelia	Lobelia
<i>Viola odorata</i>	Sweet Violet	Viola

## XIV. C O N T O R T Æ.

<i>Cinchona officinalis</i>	Peruvian Bark Tree	Peruvianus cortex
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## XV. R O T A C E Æ.

<i>Gentiana lutea</i>	Yellow Gentian	Gentiana
<i>Chironia Centaurium</i>	Lesser Centaury	Centaurium minus
<i>Menyanthes trifoliata</i>	Buck-Bean	Trifolium paludosum

## XVI. S E P I A R I Æ.

<i>Olea europæa</i>	Common European Olive	Oliva
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## XVII. B I C O R N E S.

<i>Arbutus Uva ursi</i>	Bear-Berry	Uva ursi
<i>Styrax officinale</i>	Storax Tree	Styrax, resina
<i>Styrax Benzoin</i>	Gum Benjamin Tree	Benzoc, resina
<i>Santalum Album</i>	Yellow Saunders Tree	Santalum Citrinum

## XVIII. A S P E R I F O L I Æ.

<i>Anchusa tinctoria</i>	Dier's Bugloss	Anchusa
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## XIX. VERTICILLATÆ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
Teucrium <i>Marum</i>	Herb Maftich	Marum fyriacum
———— <i>Scordium</i>	Water Germander	Scordium
Thymus <i>vulgaris</i>	Garden Thyme	Thymus
———— <i>Serpyllum</i>	Wild Thyme	Serpyllum
Meliffa <i>officinalis</i>	Common Balm	Meliffa
Hyffopus <i>officinalis</i>	Common Hyffop	Hyffopus
Lavandula <i>Spica</i>	Common Lavender	Lavendula
Origanum <i>vulgare</i>	Common Majoram	Origanum
———— <i>Marjarana</i>	Sweet Marjoram	Marjorana
Mentha <i>piperita</i>	Pepper-Mint	Mentha piperitis
———— <i>viridis</i>	Spear-Mint	———— <i>fativa</i>
———— <i>Pulegium</i>	Pennyroyal-Mint	Pulegium
Marrubium <i>vulgare</i>	Common Horehound	Marrubium
Salvia <i>officinalis</i>	Garden Sage	Salvia
Rosmarinus <i>officinalis</i>	Rosemary	Rosmarinus
Glecoma <i>hederacea</i>	Ground Ivy	Hedera terrestris

## XX. P E R S O N A T Æ.

Gratiola <i>officinalis</i>	Hedge-Hyffop	Gratiola
Veronica <i>Beccabunga</i>	Brooklime	Becabunga

## XXI. R H O E A D E S.

Papaver <i>Rhœas</i>	Red Poppy	Papaver erraticum
———— <i>somniferum</i>	Common White Poppy	Papaver album, Opium

## XXII. P U T A M I N E Æ.

## XXIII. S I L I Q U O S Æ.

Sisymbrium <i>Nasturtium</i>	Water-Cresses	Nasturtium aquaticum
Cardamine <i>pratensis</i>	Ladies-Smock	Cardamine
Sinapis <i>nigra</i>	Common Mustard	Sinapi
Cochlearia <i>officinalis</i>	Scurvy-Grafs	Cochlearia hortensis
———— <i>A Armoracia</i>	Horfe-Radish	Raphanus rusticanus

## XXIV. P A P I L I O N A C E Æ.

Dolichos <i>pruriens</i>	Cowhage Dolichos	Dolichos
Geoffroya <i>inermis</i>	Smooth Bastard Cabbage-tree	Geoffræa
Spartium <i>scoparium</i>	Common Broom	Genista



SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
Glycyrrhiza <i>glabra</i>	Common Liquorice	Glycyrrhiza
Astragalus <i>Tragacantha</i>	Goats Thorn Milk Vetch	Tragacantha, <i>gummi</i>
Trigonella <i>Fœnum græcum</i>	Common Fenugreek	Fœnum græcum

## XXV. L O M E N T A C E Æ.

Cassia <i>Senna</i>	Senna Cassia	Senna
—— <i>Fistula</i>	Purging Cassia	Cassia fistularis
Mimosa <i>Catechæ</i>	Catechu Mimosa	Catechu, <i>extractum</i>
—— <i>nilotica</i>	Egyptian Thorn Mimosa	Arabicum, <i>gummi</i>
Tamarindus <i>indica</i>	Tamarind Tree	Tamarindus
Hæmatoxylum <i>campechianum</i>	Logwood Tree	Lignum Campechense
Polygala <i>Senega</i>	Rattlesnake-Root Milk-Wort	Seneka
Fumaria <i>officinalis</i>	Common Fumitory	Fumaria

## XXVI. M U L T I S I L I Q U Æ.

Aconitum <i>Napellus</i>	Common Wolf's-Bane	Napellus
Delphinium <i>Staphisagria</i>	Staveacre	Staphisagria
Helleborus <i>niger</i>	Black Hellebore	Helleborus niger
—— <i>fœtidus</i>	Bears'-Foot	Helleboraster
Anemone <i>pratensis</i>	Meadow Anemone	Pulsatilla nigricans
Clematis <i>recta</i>	Upright Virgin's Bower	Flammula Jovis
Dictamnus <i>albus</i>	Bastard Dittany	Dictamnus albus
Ruta <i>graveolens</i>	Common Rue	Ruta

## XXVII. S E N T I C O S Æ.

Potentilla <i>reptans</i>	Cinquefoil	Pentaphyllum
Rubus <i>idæus</i>	Rasp-Berry	Rubus idæus
Rosa <i>centifolia</i>	Hundred-leaved Rose	Rosa damascena
—— <i>gallica</i>	Red Official Rose	Rosa rubra
—— <i>canina</i>	Hip, or Dog Rose	Cynosbatus, <i>fructus</i>

## XXVIII. P O M A C E Æ.

Pyrus <i>Cydonia</i>	Quince Tree	Cydonium malum
Prunus <i>domestica</i>	Prune, or Plum Tree	Prunum gallicum
—— <i>spinosa</i>	Sloe Tree	—— <i>sylvestre</i>
Amygdalus <i>communis</i>	Common Almond	Amygdala
Punica <i>Granatum</i>	Pomegranate	Granatum
Citrus <i>Medica</i>	Lemon Tree	Limon
—— <i>Aurantium</i>	Orange Tree	Aurantium hispalense

## C A T A L O G U E.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Ribes rubrum</i>	Red Currant	<i>Ribes rubrum</i>
— <i>nigrum</i>	Black Currant	— <i>nigrum</i>

## XXIX. HESPERIDÆ.

<i>Myrtus Pimenta</i>	All-Spice	Pimento
<i>Caryophyllus aromaticus</i>	Clove Tree	<i>Caryophyllum aromaticum</i>

## XXX. S U C C U L E N T Æ.

## XXXI. COLUMNIFERÆ, S. MALVACEÆ.

<i>Althæa officinalis</i>	Marsh Mallow	<i>Althæa</i>
<i>Malva sylvestris</i>	Common Mallow	<i>Malva</i>

## XXXII. G R U I N A L E S.

<i>Guaiacum officinalis</i>	Guaiacum	<i>Guaiacum</i>
<i>Quassia amara</i>	Bitter Quassia	<i>Quassia</i>
— <i>Simaruba</i>	Simaruba Quassia	<i>Simarouba</i>
<i>Linum usitatissimum</i>	Common Flax	<i>Linum</i>
<i>Oxalis Acetofella</i>	Wood-Sorrel	<i>Acetofella</i>

## XXXIII. C A R Y O P H Y L L E Æ.

<i>Dianthus Caryophyllus</i>	Clove Pink	<i>Caryophyllum rub.</i>
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## XXXIV. C A L Y C A N T H E M Æ.

## XXXV. A S C R O I D E Æ.

<i>Cistus creticus</i>	Cretan Cistus	<i>Ladanum, resina</i>
<i>Hypericum perforatum</i>	St. John's Wort	<i>Hypericum</i>
<i>Fraxinus Ornus</i>	Flowering Ash	<i>Manna</i>

## XXXVI. C O A D U N A T Æ.

## XXXVII. D U M O S Æ.

<i>Rhamnus catharticus</i>	Purging Buckthorn	<i>Spina cervina</i>
<i>Sambucus nigra</i>	Common Black Elder	<i>Sambucus</i>
<i>Amyris Elemifera</i>	Gum Elemi Tree	<i>Elemi, resina</i>
— <i>gileadensis</i>	Balsam of Gilead Tree	<i>Balsamum gileadense</i>
<i>Copaifera officinalis</i>	Balsam of Capaiva Tree	<i>Balsamum Copaiva</i>
<i>Myroxylon peruiferum</i>	Balsam of Peru Tree	<i>Bals. peruvianum</i>
<i>Toluifera Balsamum</i>	Balsam of Tolu Tree	<i>Bals. tolutanum</i>

## XXXVIII. T R I H I L A T Æ.

<i>Æsculus Hippo-castanum</i>	Horse-Chestnut	<i>Hippocastanum</i>
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## SYSTEMATIC NAMES.

## ENGLISH.

## OFFICINAL.

XXXIX. *T R I C O C C Æ.*

<i>Croton Cascarilla</i>	Willow-leaved Croton	Cascarilla
<i>Ricinus communis</i>	Palma Christi	Ricinus
<i>Stalagmitis Cambogioides</i>	Gamboge Tree	Gambogia

XL. *O L E R A C E Æ.*

<i>Salsola Kali</i>	Prickly Salt-Wort	Barilla, Natron
<i>Chenopodium Vulvaria</i>	Stinking Goosefoot	Atriplex foetida
<i>Rumex aquaticus.</i>	Water Dock	Hydrolapathum
—— <i>Acetosa</i>	Common Sorrel	Acetosa
<i>Rheum palmatum.</i>	Officinal Rhubarb	Rhabarbarum.
<i>Polygonum Bistorta</i>	Bristort Snakeweed	Bistorta

<i>Laurus Cinnamomum</i>	Cinnamon Tree	Cinnamomum
—— <i>nobilis</i>	Sweet Bay	Laurus
—— <i>Sassafras</i>	Sassafras Tree	Sassafras
—— <i>Camphora</i>	Camphor Tree	Camphora
<i>Canella alba</i>	Laurel-leaved Canella	Canella alba
<i>Myristica Moschata</i>	Nutmeg Tree	Nux moschata

XLI. *S C A B R I D Æ.*

<i>Parietaria officinalis</i>	Wall Pellitory	Parietaria
<i>Dorstenia Contrayerva</i>	Contrayerva	Contrayerva
<i>Ficus Carica</i>	Fig Tree	Carica
<i>Urtica dioica</i>	Common Nettle	Urtica
<i>Morus nigra</i>	Mulberry Tree	Morum
<i>Ulmus campestris.</i>	Common Elm	Ulmus

XLII. *V E R P E C U L Æ.*

<i>Daphne Mezereum.</i>	Mezereon	Mezereum.
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XLIII. *P A L M Æ.*

<i>Cocos butyracea</i>	Oil Palm Tree	Palma, oleum
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XLIV. *P I P E R I T Æ.*

<i>Piper nigrum</i>	Black Pepper	Piper nigrum
—— <i>longum</i>	Long Pepper	—— longum
—— <i>Cubeba</i>	Cubeb Pepper	Cubebæ
<i>Acorus Calamus</i>	Sweet Flag	Calamus aromaticus
<i>Arum maculatum</i>	Common Arum	Arum



## C A T A L O G U E.

## XLV. SCITAMINEÆ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICIAL.
<i>Anomum Zingiber</i>	Ginger	Zingiber
—— <i>Cardamomum</i>	Cardamom	Cardamomum minus
<i>Curcuma longa</i>	Turmeric	Curcuma
<i>Kæmpferia rotunda</i>	Zedoary	Zedoaria

## XLVI. LILIACEÆ.

<i>Lilium candidum</i>	Common White Lily	Lilium album
<i>Scilla maritima</i>	Officinal Squill	Scilla
<i>Allium sativum</i>	Common Garlick	Allium
<i>Veratrum album</i>	White Hellebore	Helleborus albus
<i>Colchicum autumnale</i>	Common Meadow Saffron	Colchicum
<i>Crocus sativus</i>	Saffron	Crocus
<i>Aloës species variæ</i>	Aloe	Aloë
<i>Convallaria Polygonatum</i>	Solomon's Seal	Convallaria

## XLVII. ENSATÆ.

<i>Iris florentina</i>	Florentine Orris	Iris florentina
—— <i>Pseudo-acorus</i>	Yellow Water Flag	Iris palustris

## XLVIII. ORCHIDÆÆ.

<i>Orchis mascula</i>	Male Orchis	Satyrium
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## XLIX. TRIPE TALOIDEÆ.

<i>Calamus Rotang</i>	Dragon's Blood Tree	Sanguis draconis
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## L. CALAMARIÆ.

## LI. GRAMINÆ.

<i>Triticum hybernum</i>	Wheat	Triticum
<i>Hordeum distichon</i>	Barley	Hordeum
<i>Avena sativa</i>	Oat	Avena
<i>Saccharum officinarum</i>	Sugar Cane	Saccharum

## LII. FILICES.

<i>Polypodium Filix mas</i>	Male Fern	Filix
<i>Asplenium Trichomanoides</i>	Maidenhair	Trichomanes

## LIII. MUSCI.

## LIV. ALGÆ.

<i>Lichen islandicus</i>	Eryngo-leaved Lichen	Lichen islandicus
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## LV. FUNGI.

<i>Boletus igniarius</i>	Agaric	Agaricus chirurgorum
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*Mimosa Catechu.*

Published by D. Woodville Esq. J. L. 1791



## MIMOSA CATECHU. CATECHU MIMOSA.

Ex hujus plantæ ligno paratur *CATECHU*, vulgo *Terra Japonica*.  
*Pharm. Lond. & Edinb.*

*SYNONYMA.* Mimosa Cate; spinis duabus stipularibus, foliis bipinnatis 15-30 jugis, foliolis 40 jugis, spicis elongatis axillaribus. Vide *Murray App. Med. vol. ii. p. 415.* Coira vel Caira in Provincia Bahar dicitur. See *Kerr's* "Description of the Plant from which the *Terra Japonica* is extracted. *Med. Obs. & Inquir. vol. v. p. 151. Suppl. Plant. p. 439.*

*Class* Polygamia. *Ord.* Monoecia. *Lin. Gen. Plant.* 1158.

*Eff. Gen. Ch.* *HERMAPH.* Cal. 5-dentatus. Cor. 5-fida. Stam. 5 f. plura. *Pist.* 1 Legumen.

*MASC.* Cal. 5-dentatus. Cor. 5-fida. Stam. 5, 10, plura.

*Sp. Ch.* M. spinis stipularibus, foliis bipinnatis multijugis: glandulis partialium singulis, spicis axillaribus geminis f. ternis pedunculatis. *Syst. Veg. ed. 14.*

ACCORDING to Mr. Kerr, this small tree grows to twelve feet in height, and to one foot in diameter; it is covered with a thick rough brown bark, and towards the top divides into many close branches: the leaves are bipinnated, or doubly winged, and are placed alternately upon the younger branches: the partial pinnæ are nearly two inches long, and are commonly from fifteen to thirty pair, having small glands inserted between the pinnæ: each wing is usually furnished with about forty pair of pinnulæ or linear lobes, beset with short hairs: the spines are short, recurved, and placed in pairs at the bases of each leaf: the flowers are hermaphrodite and male, and stand in close spikes, which arise from the axillæ of the leaves, and are four or five inches long: the calyx is tubular, hairy, and divides at the limb into five oval pointed segments: the corolla is monopetalous, whitish, and of the same form as the calyx, but twice its length: the filaments are numerous, capil-

lary, double the length of the corolla, adhering at the base of the germen, and crowned with roundish antheræ: the germen is oval, and supports a slender style, which is of the length of the filaments, and terminated by a simple stigma: the fruit, or pod, is lance-shaped, brown, smooth, compressed, with an undulated thin margin; it contains six or eight roundish flattened seeds, which produce a nauseous odour when chewed. This tree grows plentifully on the mountainous parts of Indostan, where it flowers in June.

An Indian drug, known by the name of Terra Japonica, and now more properly called Catechu, has long been an officinal medicine in Europe; and though soon discovered by chemical analysis to be of vegetable origin, yet neither was the plant from which it is produced, nor the process by which it is prepared, sufficiently ascertained for near a century afterwards. Writers on the Materia Medica very generally, from the time of Clusius, considered the Catechu to be extracted from the seeds of a nut, the produce of a species of palm; (Areca, or Beetle-nut) and conformably to this opinion, Linnæus, in both the editions of his Mat. Med. refers this drug to the "*Areca Catechu frondibus pinnatis, foliolis replicatis oppositis præmorsis.*" We are told however by Mr. Kerr, that in the Province of Bahar, where the Terra Japonica is manufactured, the price of the Areca-nut far exceeds that of the Catechu.<sup>a</sup> But he thinks it probable that where this nut is in great plenty, "they may perhaps join some of the fruit in making the extract, to answer a double purpose, for the most frequent use of both is in chewing them together, as Europeans do tobacco; to these two substances they add a little shell lime, and a leaf called *Pauw.*"<sup>b</sup> Cleyerus and Herbert de Jager,<sup>c</sup> more especially the latter, have asserted, that the Catechu is not extracted from one tree only, but from almost all the species of Acacia, whose bark is astringent and reddish, and from many other plants, which by boiling yield a juice of the like sort; and though these extracts differ consider-

<sup>a</sup> Mr. Kerr says, if the Terra Japonica were extracted from this nut, it would be twenty times dearer than in the present sales. Vide l. c.

<sup>b</sup> Hence the following lines:

Quis foliis credat commixta calce tenellis,  
Cum fructu hoc Indos vesci, unde ore cruento  
Purpureum ejiciunt succum, tam dentibus atris  
Horrendum arringunt, & dentibus ore minantur?

<sup>c</sup> Vide *Misc. Nat. Cur. Dec. 2. Ann. 4. Obs. 3. & Dec. 2. Ann. 3. p. 8.*

ably, yet in India they are all denominated Khaath or Catechu.† But the tree which affords the best extract, according to his description, appears evidently to be a Mimosa.<sup>d</sup>

In this uncertainty our knowledge concerning the production of Terra Japonica still remained, till Mr. Kerr (assistant surgeon to the civil hospital at Bengal) transmitted an account of this substance, which completely removed every doubt respecting its origin. In this account we are told, that he not only carefully attended to the process of the manufacturer in the preparation of Catechu, but that he actually repeated it himself; and upon the faith of the figure and description of the plant which he has given, and from which he prepared the Catechu, the younger Linnæus has admitted it into the Supp. Plant. under the name of Mimosa Catechu; and we have accordingly figured the plant. The preparation of the extract is stated by Mr. Kerr to be as follows: "After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior coloured wood is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; when this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, and boiled to one third part; this is set in a cool place for one day, and afterwards evaporated by the heat of the sun, stirring it several times in the day; when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cow dung; this mass is divided into square or quadrangular pieces by a string, and completely dried by turning them frequently in the sun, until they are fit for sale."<sup>e</sup>

This

† The derivation of the word Catechu seems to favour this opinion; *Cate*, in the oriental language, signifies a tree, and *Chu*, juice.

<sup>d</sup> According to the Linnæan nomenclature we have no genus under the name *Acacia*. But the Mimosas are very numerous, and that most known in Europe is the *M. pudica*, or humble *sensitive plant*, and the remarkable contractions which it manifests upon being touched, or even approached, induced my ingenious friend Dr. Marshall, to dissect the moving fibres. In his letter to me, he says, "I have made two or three dissections (more to gratify the curiosity of the moment than to ascertain any discovery) of the fleshy joints of the *Mimosa pudica*; branch is articulated with stem, petiolus with branch, and petiolus of the leaflet with the common petiolus. Within the fleshy substance of the joint are found numerous white threads, which go from the one articulated body to the other, inserted into both. These it would appear, are the irritable fibres, by which the motions are performed."

<sup>e</sup> "In making the extract, the pale brown wood is preferred, as it produces the fine whitish



This extract is called *Cutt* by the natives, by the English *Cutch*, and by different authors *Terra Japonica*, *Catechu*, *Khaath*, *Cate*, *Cachou*, &c. “ In its purest state it is a dry pulverable substance, outwardly of a reddish colour, internally of a shining dark brown, tinged with a reddish hue; in the mouth it discovers considerable astringency, succeeded by a sweetish mucilaginous taste. According to Lewis, “ it dissolves almost totally in water, excepting the impurities; which are usually of the sandy kind, and amounting in the specimens I examined to about one-eighth of the mass. Of the pure matter, rectified spirit dissolves about seven-eighths into a deep red liquor: the part which it leaves undissolved, is an almost insipid mucilaginous substance.”<sup>f</sup> “ Catechu may be usefully employed for most purposes where an astringent is indicated, provided the most powerful be not required. But it is particularly useful in alvine fluxes; and where these require the use of astringents, we are acquainted with no one equally beneficial. Besides this, it is employed also in uterine profluvia, in laxity and debility of the viscera in general, in catarrhal affections, and various other diseases where astringents are necessary. It is often suffered to dissolve leisurely in the mouth, as a topical astringent for laxities and exulcerations of the gums, for apthous ulcers in the mouth, and similar affections.”<sup>g</sup> “ This extract is the basis of several fixed formulæ in our pharmacopœias, particularly of a tincture and an electuary: but one of the best forms under which it can be exhibited, is that of a simple infusion in warm water, with a proportion of cinnamon or cassia; for by this means it is at once freed from its impurities, and improved by the addition of the aromatic.”

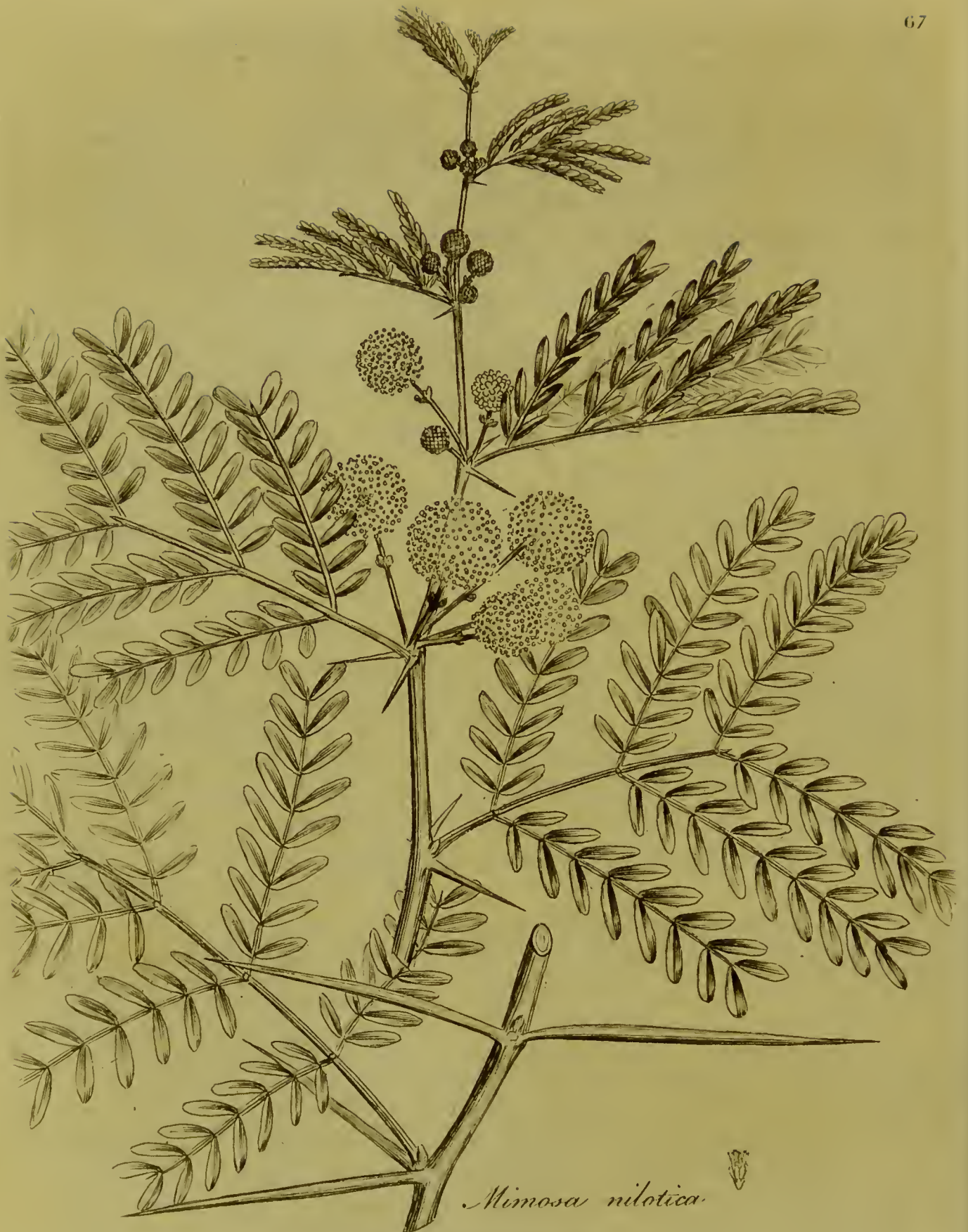
whitish extract: the darker the wood is, the blacker the extract, and of less value. They are very careful in drying their pots upon the fire, before they are used; but very negligent in cutting their chips upon the ground, and not straining the decoction, by which, and the dirty ashes they use, there must be a considerable quantity of earth in the extract, besides what avarice may prompt them to put into it.” *Kerr l. c.*

<sup>f</sup> Lewis's *M. M.* p. 642.      <sup>g</sup> See Duncan's *Edinb. New Dispens.* p. 167.

The antiseptic quality of Catechu appears from the experiments made by Sir John Pringle. (*Vide Disf. of the Army, App. Exp.* 10.) Huxham employed it successfully in cases where a putrid dissolved state of the blood prevailed. This extract is the principal ingredient in an ointment of great repute in India, composed of Catechu four ounces, alum nine drams, white resin four ounces; these are reduced to a fine powder, and mixed with the hand, adding olive oil ten ounces, and a sufficient quantity of water, to bring the mass to the consistence of an ointment. To all sores and ulcers in warm climates astringent applications of this kind are found to be peculiarly useful. See *Kerr l. c.*

MIMOSA NILOTICA.





*Mimosa nilotica*

Published by D<sup>r</sup> Woodville Feb<sup>y</sup> 1. 1791.



## MIMOSA NILOTICA.

EGYPTIAN MIMOSA,  
ACACIA, EGYPTIAN THORN.

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Gummi Arabicum, *Pharm. Lond. & Edinb. sponte ex hac  
planta fluit.*

*SYNONYMA.* *Acacia vera.* *J. Baub. Hist. vol. i. p. 429.* *Acacia*  
*foliis scorpioides leguminosæ.* *Baub. Pin. 392.* *Acanthus Theo-*  
*phraſti.* *Raii Hist. p. 976.* *Acacia vera five ſpina Ægyptiaca.*  
*Park. Theat. p. 1547.* *Acacia vera f. Spina Ægyptiaca, ſubrotundis*  
*foliis flore luteo; ſiliqua paucioribus iſthmis glabris nigricantibus.*  
*Pluk. Alm. 3. t. 123. f. 1.* *Acacia Ægyptiaca ſiliquis Lupini,*  
*floribus luteis.* *Herm. Parad. Bat. Prod. 303.* *Conf. Haſſelq. it.*  
*p. 475.* *Ακκία Dioſcorid. L. 1. cap. 133.*

*Clafs Polygamia. Ord. Monoecia. Lin. Gen. Plant. 1158.*

*Eff. Gen. Ch. HERMAPH. Cal. 5-dentatus. Cor. 5-fida. Stam.*  
*5. f. plura. Piſt. 1. Legumen.*

*MASC. Cal. 5-dentatus. Cor. 5-fida. Stam. 5, 10, plura.*

*Sp. Ch. M. ſpinis ſtipularibus patentibus, foliis bipinnatis: partia-*  
*libus extimis glandula interſtinctis, ſpicis globosis pedunculatis.*

THIS, like the preceding ſpecies of Mimosa, riſes ſeveral feet in height: it is covered with ſmooth bark of a grey colour, and that of the branches has commonly a purpliſh tinge: the leaves are bipinnated, and placed alternately: the partial pinnæ are oppoſite, furniſhed with a ſmall gland between the outermoſt pair, and beſet with numerous pairs of narrow elliptical pinnulæ, or leaflets: the ſpines are long, white, ſpreading, and proceed from each ſide of the baſe of the leaves: the flowers are hermaphrodite and male, they aſſume a globular ſhape, and ſtand four or five together upon ſlender peduncles, which ariſe from the axillæ of the leaves: the calyx is ſmall, bell-ſhaped, and divided at the mouth into five minute teeth: the corolla conſiſts of five narrow yellowiſh ſegments: the filaments are nume-

rous, capillary, and furnished with roundish yellow antheræ: the germen is conical, and supports a slender style, crowned with a simple stigma: the fruit is a long pod, resembling that of the Lupin, and contains many flattish brown seeds. It is a native of Arabia and Egypt, and flowers in July.<sup>a</sup>

Dioscorides was certainly well acquainted with this tree, as he not only mentions the gum which it produces, but also the renowned *Acaciæ veræ succus*,<sup>b</sup> obtained from its pods; since his time, however, it has been thought that gum arabic is not the production of the Acacia or Mimosa, as it is now called; but the accounts given by Alpinus, and those of subsequent naturalists, leave no doubt upon this subject.<sup>c</sup>

Although the *Mimosa nilotica* grows in great abundance over the vast extent of Africa, yet gum arabic is produced chiefly by those trees, which are situated near the equatorial regions; and we are told that in Lower Egypt the solar heat is never sufficiently intense for this purpose.<sup>d</sup> The gum exudes in a liquid state from the bark of the trunk and branches of the tree, in a similar manner to the gum which is often produced upon the cherry trees, &c. in this country; and by exposure to the air it soon acquires solidity and hardness. In Senegal the gum begins to flow when the tree first opens its flowers,<sup>e</sup> and continues during the rainy season till the month of December, when it is collected for the first time. Another collection of the gum is made in the month of March, from incisions in the bark, which the extreme dryness of the air at that time is said to render necessary.<sup>f</sup>

<sup>a</sup> The *M. nilotica* was cultivated in England by Evelyn in 1664. Kalend. h. p. 75.

A plant of this species is now in the Royal Garden at Kew, about four feet in height: and in Dr. Lettsom's garden at Grove Hill, where it flowers annually.

<sup>b</sup> The pod, and manner of preparing the juice, are thus mentioned by Murray: "Ex fructu elicitor, qui ipse legumen est complanatum viridi brunum, quatuor vel quinque pollices longum et octies vel decies angustius, compositum ex sex vel decem partibus vel articulis discoideis et intra utramque cuticulam parenchyma gummosum rubicundum continens. In quovis articulo latet semen ellipticum sulco utrinque pariter elliptico notatum. Succus exprimitur ex fructu immaturo in mortario contuso, et calore in spissitudinem extracti densatur," &c. *Vide App. Med. vol. ii. p. 412.*

<sup>c</sup> Hasselquist. Adanson, Sparrman, and others. <sup>d</sup> Niebuhr Reisebesch. Arab. i. B. p. 143. <sup>e</sup> Adanson Mem. de l'Ac. d. Sc. d. Paris, 1773. p. 8. <sup>f</sup> Demanet Nouvelle Hist. de l'Afrique Française, t. i. p. 56.



Gum arabic is now usually imported into England from Barbary, not packed up in skins, which was the practice in Egypt and Arabia, but in large casks or hogheads. The common appearance of this gum is so well known as not to require any description of it here; and the various figures which it assumes seem to depend upon a variety of accidental circumstances attending its transudation and concretion.

Gum Arabic of a pale yellowish colour is most esteemed; on the contrary, those pieces which are large, rough, of a roundish figure, and of a brownish or reddish hue, are found to be less pure, and are said to be produced from a different species of *Mimosa*: (*M. Senegal*) but the Arabian and Egyptian gum is commonly intermixed with pieces of this kind, similar to that which comes from the coast of Africa, near the river Senegal. Gum Arabic does not admit of solution by spirit or oil, but in twice its quantity of water it dissolves into a mucilaginous fluid, of the consistence of a thick syrup, and in this state answers many useful pharmaceutical purposes, by rendering oily, resinous, and pinguious substances, miscible with water.<sup>3</sup>

The glutinous quality of gum arabic is preferred to most other gums and mucilaginous substances as a demulcent, in coughs, hoarsenesses, and other catarrhal affections, in order to obtund irritating acrimonious humours, and to supply the loss of abraded mucus. It has been very generally employed in cases of ardor urinæ, and stranguary: but it is the opinion of Dr. Cullen, "that even this mucilage, as an internal demulcent, can be of no service beyond the alimentary canal. In common practice hardly more than a few ounces are given in one day; and what that can give of a mucilaginous quality to many pounds of serosity, I leave my intelligent reader to judge. Still, however, it may not be thought enough to reason *a priori*, and I should say, what experience has actually taught. What others may have observed, I cannot determine; but, for myself I can assert, that, in innumerable trials, I have never observed the effects of gum arabic in the mass of blood, or in the excretions derived from it. The most frequent occasion for its use is in the ardor urinæ; and in that I have been often disappointed, and have often found that two pounds of water or watery liquors added to the drink, would be

<sup>3</sup> See Mr. French's Experiments in Lond. Med. Observ. vol. i. p. 413, &c.



of more service than four ounces of gum arabic taken in without such addition.”<sup>h</sup> This gum is an ingredient in the Hartshorn decoction, the chalk Julep, the common emulsion, and some of the troches as directed in our Pharmacopœias.

<sup>h</sup> Mat. Med. p. 415. vol. 2.

Gum arabic has been found a good substitute for food; and Dr. Sparrman tells us, that he pointed out this gum to the Hottentots, “ which they might gather in many spots thereabouts from the *Mimosa nilotica*; but this was a species of food very well known to them, and which they had often tried.—When in want of other provisions, the Boshies-men are said to live upon this for many days together.”——Voyage to the Cape, vol. ii. p. 23.

## RUBIA TINCTORUM.

## DIER'S MADDER.

*SYNONYMA.* Rubia. *Pharm. Lond. & Edinb.* α Rubia sylvestris aspera. β Rubia tinctorum fativa. *Baub. Pin. p. 333.* Rubia tinctorum. *Gerard. Emac. p. 1118.* Rubia major fativa. *Park. Theat. p. 274.* Rubia sylvestris monspessulana major. *J. Baub. Hist. vol. iii. p. 715.* Rubia tinctorum. *Raii Hist. p. 480.* *Vide Hall. Stirp. Helv. n. 708.* Rubia foliis fenis. *Miller's Dict.* *Εγυθροδανον vel Εγευθοδανον Græcorum.*

*Class* Tetrandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 127.

*Eff. Gen. Ch.* Cor. 1-petala, campanulata. *Baccæ* 2, monospermæ.

*Sp. Ch.* R. foliis annuis, caule aculeato. *Mant.* 330.

THE root is perennial, long, round, jointed, beset with small fibres, externally of a bright red colour, but towards the center yellowish: the stalks are quadrangular, slender, procumbent, jointed, four or five feet in length, and covered with rough short points, by which they adhere to the neighbouring plants for support: the leaves are elliptical, pointed, rough, ciliated, and are placed in whorls of four, five, or six together at the joints of the stem: the branches  
stand



*Rubia tinctorum*

Published by D<sup>r</sup> Woodville Feb. 7. 1. 1791.





stand in pairs at the articulations of the stalk, and upon their various subdivisions produce small terminal flowers of a yellow colour: the calyx is divided at the mouth into four teeth: the corolla is small, bell-shaped, and cut at the extremity into four oval segments: the filaments are four, short, and support simple erect antheræ: the germen is double, and placed below the corolla: the style is slender, and at the top divides into two globular stigmata: the fruit consists of two round berries, each containing an oval seed, with a cavity at its smaller extremity. It is a native of the South of Europe, and flowers in June.

Madder is frequently mentioned by the Greek writers, who employed its roots with the same medicinal intentions for which they now are recommended by most of the modern writers on the *Materia Medica*. Our knowledge of the first cultivation of this plant in England is from Gerard;<sup>a</sup> and though an extensive cultivation of Madder in Britain seems to promise considerable advantage both to the planter and to the nation, yet we find that the great quantity of Madder roots used here by the Diers and Callico-printers, has been for many years almost wholly the growth and export of Holland.<sup>b</sup> Madder appears to differ from other substances used for the purpose of dying, in having the peculiar property\* of tinging with a florid red colour not only the milk, urine, &c.<sup>c</sup> but even the bones of those animals which have fed upon it; a circumstance which was first noticed by Antonius Mizaldus,<sup>d</sup> but not known in England till Mr. Belchier published an account of a pig and a cock, whose bones became red by eating Madder mixed with their food;<sup>e</sup> since that time

<sup>a</sup> Vide *Hort. Kew.* <sup>b</sup> *Miller Dict.* in which is also given a full account of the cultivation of this plant. But we are happy to observe, that by the laudable endeavours of the *Society for the Encouragement of Arts*, &c. considerable quantities of English Madder have been produced, and found as good at least, if not better than any imported. See *Transactions*, p. 10. vol. i.

\* Some other plants of the same natural order (*Stellatæ*) have also the effect of tinging the bones, as the *Galium Mollugo* and *Aparine*. Vide Guettard *Mem. de l'Ac. de Sc. a.* 1746 & 1747. And the *Valantia cruciata*. Böhmer *Diff. de rad. rub. tinct.* p. 42.

<sup>c</sup> Böhmer also found the serum of the blood reddened by the Madder. *Diff. rad. rub. tinct.* &c. p. 13. And Levet observes, that it sometimes tinged the excretion by the skin. *Sur les Accouchemens*, p. 278.

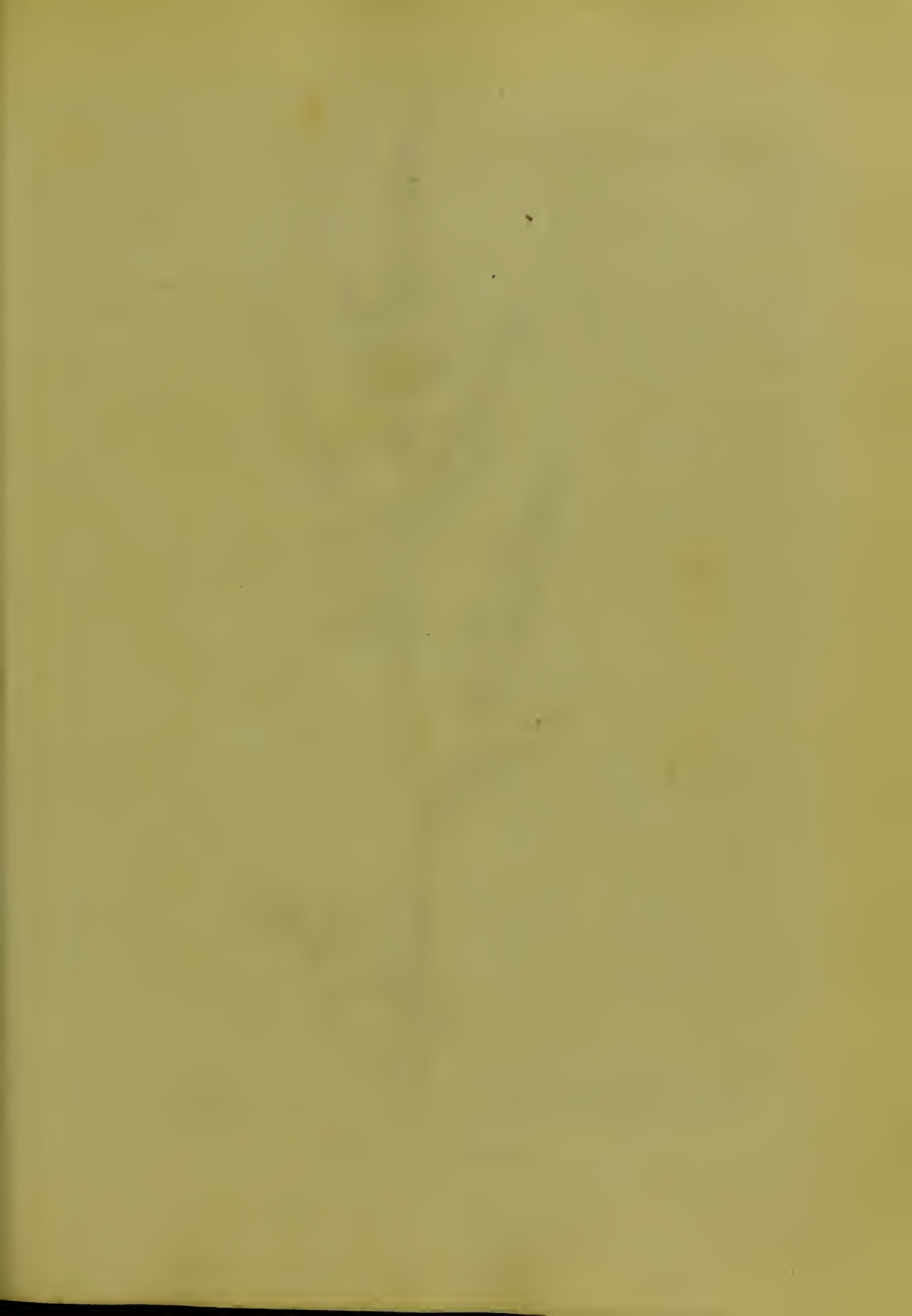
<sup>d</sup> *Memorab. ut. ac jucunda Cent.* 7. *Aph.* 91. *Lutet.* 1566.

<sup>e</sup> *Phil. Transf.* vol. 39. p. 287. & p. 299. See also vol. 41. Afterwards experiments were prosecuted by Bazanus, Geoffroy, Du Hamel, Fougereux, Bergius, and others.

various experiments relating to this subject have been made, from which it appears that the colouring-matter of Madder affects the bones in a very short time, and that the most solid; or hardest, part of the bones first receives the red colour, which gradually extends, *ab externo*, through the whole osseous substance, while the animal continues to take the Madder; and if this root be alternately intermitted and employed for a sufficient length of time, and at proper intervals, the bones are found to be coloured in a correspondent number of concentric circles. According to Lewis, "the roots of Madder have a bitterish somewhat austere taste, and a slight smell not of the agreeable kind. They impart to water a dark red tincture, to rectified spirit, and to distilled oils, a bright red; both the watery and spirituous tinctures taste strongly of the Madder."<sup>f</sup>

Madder, by medicinal writers, has been considered as a deobstruent, detergent, and diuretic, and is chiefly used in the jaundice, dropsy, and other diseases supposed to proceed from visceral obstructions, particularly those of the liver and kidneys; and some modern authors have recommended it as an emmenagogue,<sup>g</sup> and in rickety affections.<sup>h</sup> With regard to its diuretic quality, for which there are many respectable authorities, Dr. Cullen asserts, that in many trials both for this and other purposes, such an effect is not constant, having never occurred to him. As a remedy for the jaundice, it has the authority of Sydenham, and was formerly an ingredient in the decoctum ad icteros of the Edin. Pharm. but as it seemed more adapted to the *faeces albidæ* than to the disease itself, this decoction was expunged. That some French writers should prescribe Madder in a rickety state of the bones, appears a little surprising, as the brute animals, to which it was given, especially the younger, suffered considerable emaciation and prostration of strength from its effects. Its virtues, as an emmenagogue, rest principally on the authority of Dr. Home, who gave from a scruple to half a dram of the powder, or two ounces of the decoction, three or four times a day. But this medicine failed with Dr. Cullen, who also says, "I know of other practitioners in this country, who, after several ineffectual trials made with it, have now entirely deserted its use."<sup>i</sup>

<sup>f</sup> *Mat. Med.* p. 546.    <sup>g</sup> See *Home's Clinical Experiments*, p. 388.    <sup>h</sup> *Levret. l. c.* and *Alii.*    <sup>i</sup> *Mat. Med.* vol. ii. p. 39.







*Rumex Acetosa*

Published by D<sup>r</sup> Woodville. Feb<sup>r</sup> 1 1791.

## RUMEX ACETOSA.

## COMMON SORREL.

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*SYNONYMA.* Acetosa. *Pharm. Lond. & Edinb.* Acetosa pratensis. *Baub. Pin. p.* 114. *Oxalis crispa. J. Baub. ii. p.* 990. *Oxalis feu Acetosa. Gerard. Emac. p.* 396. *Acetosa vulgaris. Park. p.* 742. *Lapathum acetosum vulgare. Raii Synop. p.* 148. *Raii Hist. p.* 178. *Lapathum sexubus distinctis, foliis sagittatis, hamis retrorsum porrectis. Hal. Stirp. Helv. n.* 1597. *R. Acetosa. Withering. Bot. Arrang. p.* 376. *Relban Flor. Cant. p.* 149. *Hudson's Ang.* 156.

*Class* Hexandria.\* *Ord.* Trigynia. *Lin. Gen. Plant.* 451.

*Eff. Gen. Ch. Cal.* 3-phyllus. *Petala* 3, conniventia. *Sem.* 1, triquetrum.

*Sp. Ch. R. Flor.* dioicis, fol. oblongis sagittatis.

THE root is perennial, slender, long, and fibrous: the stalk is erect, channelled, branched at the top, partially of a purplish red colour, and usually rises from one to two feet in height: the radical leaves are narrow, oblong, arrow-shaped, of a bright green colour, and stand upon long footstalks, but those on the stem are without footstalks, and placed alternately: the flowers are produced in terminal branched spikes, partly tinged of a reddish colour, and stand upon short slender peduncles: the calyx is composed of three oval segments: the corolla consists of three petals, shaped like the divisions of the calyx: the six filaments are short, slender, and furnished with erect double antheræ: the germen is triangular, and supports three simple reflected styles, with bearded stigmata: the seeds are naked, single, and of a triangular shape. It is common in meadows and pastures, and flowers in June.

Some writers have referred this plant to the *Lapathum quartum*<sup>a</sup> of

\* This plant, according to the strictness of methodical system, ought to belong to the class Dioecia, as the flowers are distinctly male and female in different plants: our figure represents the former.

<sup>a</sup> *L. ii. cap.* 108.

Dioscorides, and to the *Lapathum fylvestre*, quod alii oxalidem appellant, of Pliny.<sup>b</sup> But as the word *ξύ* has been indiscriminately used both to signify sharp, with respect to the taste of a plant, and in relation to the form of its leaves, there may be a doubt whether those authors have done right, in exclusively applying it in the former sense as in the name *Acetosa*.—The leaves of common Sorrel have an agreeable acid taste, like that of the *Oxalis Acetosella*, or Wood-sorrel, which we have before described; (see page 56) and as they are medicinally employed for the same purposes, what has been already said of that plant will in a great measure apply to this; which from being easily procured in great abundance may be conveniently substituted for it. Sorrel, taken in considerable quantity, or used variously prepared as food, will certainly be found of important advantage where a refrigerant and antiscorbutic regimen is required;<sup>c</sup> and we are told by Linnæus, that the Laplanders experience a *serum acetosatum* to be in this respect an useful and pleasant diet.<sup>d</sup>

<sup>b</sup> *L. xx. cap. 21.*      <sup>c</sup> See Morin in *Hist. de l'Ac. des Sciences*, 1708, p. 52.  
Barthol. *Act. Havn.* 1671, p. 35.      Boerhaave *Hist. Plant. L. B. P. ii. p. 540.*  
<sup>d</sup> *Flor. Lapp. p. 94.*

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ARBUTUS UVA URSI.      TRAILING ARBUTUS; Or  
BEAR-BERRY.

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*SYNONYMA.* *Uva ursi. Pharm. Lond & Edinb. Uva ursi Clus. Rarior. Plant. Hist. p. 62. Vaccinia ursi sive Uva ursi apud Clusium. Gerard. Emac. p. 1416. J. Baub. Hist. vol. i. p. 523. Baub. Pin. p. 470. Park. Theat. p. 1457. Raii Synopsis, n. 457. Hist. p. 1489. sp. 5. Flor. Dan. 33. Murr. Comment. de Arbuto uva ursi. Gotting. 1764. Girardi Novæ Animadver. Patavii 1764. Sandifort Diff. tab. 8. Withering. Bot. Arr. p. 428.*

*Class* Decandria.    *Ord.* Monogynia.    *Lin. Gen. Plant.* 220.

*Eff. Gen. Ch.*    *Cal.* 5-partitus.    *Cor.* ovata: ore basi pellucida.  
      *Bacca* 5-locularis.

*Sp. Ch.*    *A.* caulibus procumbentibus, foliis integerrimis.

The





*Arbutus Uva ursi*



THE root is perennial, long, branched, and fibrous: the stems are numerous, procumbent, spreading, woody, scarcely a foot in length, and seldom divided into branches: the leaves are oblong, obtuse, narrowed towards the base, entire, thick or fleshy, smooth, without footstalks, of a dingy green colour, and closely surround the upper part of the stalk: the flowers are whitish or flesh-coloured, and terminate the stems in small clusters upon short slender pedicles: the calyx is very small, and divided into five obtuse teeth: the corolla consists of a single petal, which is tubular, oval, contracted,<sup>a</sup> and divided at the margin into five minute reflexed segments: the filaments are ten, short, downy, tapering, and crowned with erect reddish antheræ: the germen is oval, and placed above the insertion of the corolla: the style is tapering, longer than the filaments, and terminated with a simple stigma: the fruit is a pulpy, round, red berry. It is a native of the Northern parts of Britain, and flowers in June.

Professor Murray has not been able to determine whether this plant is the *ἄγριον σαφύλην*, which is much commended by Galen<sup>b</sup> in cases of hæmoptysis, or the *ἰδαίας εἰς* used as a general astringent by Dioscorides.<sup>c</sup> It grows in great abundance in different parts of Europe and America, particularly in barren sandy soils; and that which is found in dry, lofty, and exposed situations, is preferred<sup>d</sup> for medical use to that which is collected in valleys and shady grounds. The leaves of this plant, in a dried state, have no remarkable smell, but a bitterish astringent taste, and by some are used for the purpose of dying an ash-colour, and for tanning leather. The sapid matter of these leaves has been attributed rather to the presence of gummy than of resinous particles, as watery menstrua extract their virtues more completely than spirituous.<sup>e</sup>

The Uva Ursi, though employed by the ancients in several diseases requiring astringent medicines, had almost entirely fallen into disuse till about the middle of the present century, when it first drew the attention of physicians as a useful remedy in calculous and

<sup>a</sup> Our artist, by supposing the contracted state of the corolla to be merely the effect of drying, has made it appear too inflated in the annexed figure.

<sup>b</sup> *De comp. med. sec. loc. L. 7. c. 4. p. 548. Ed. Chart.* <sup>c</sup> *Mat. Med. L. 4. c. 42. p. 482. Ed. Vergil.* <sup>d</sup> *Girardi l. c. p. 454.* <sup>e</sup> *Murray App. Med. vol. ii. p. 58.*



nephritic affections; and in the years 1763 and 1764, by the concurrent testimonies of different authors,<sup>f</sup> it acquired remarkable celebrity not only for its efficacy in gravelly complaints, but in almost every other to which the urinary organs are liable, as ulcers of the kidneys and bladder, cystirrhœa, diabetes, &c. and its utility was then thought to be so fully established, that a Spanish writer<sup>g</sup> made it his boast that the man, to whom these important discoveries of the effects of this plant ought first to be referred, was his countryman. He was however superseded in this claim by the physicians at Montpellier, who had been in the habit of prescribing Uva Ursi in these diseases for many years before.<sup>h</sup> But the cases published successively by De Haen tended more to raise the medical character of Uva Ursi over Europe than all the other books professedly written on the virtues of this plant: and encouraged by his success, many practitioners in this country have been induced to try its effects; and though the use of this plant has been frequently observed to mitigate the pains in calculous cases, yet in no instances do we find that it has produced that essential or permanent relief, which is said to have been experienced by the German physicians.<sup>i</sup>

From the experiments of Dr. Alexander,<sup>k</sup> the leaves of Uva Ursi seem to possess very little diuretic power, and those made by Murray<sup>l</sup> show that they have no material effect upon the urinary calculi: the efficacy they may therefore have in relieving the calculous diseases, we are disposed to ascribe to their astringency; and in confirmation of this opinion we may cite the observation of Dr. Cullen, who, in

<sup>f</sup> De Haen, Gerhard, Quer, Girardi, Murray, Buchoz, and others.

<sup>g</sup> Quer. See the French version of his book, viz. *Dissertation sur la maladie nephritique, et sur son veritable specifiqu le Raisin d'ours*, p. 84. <sup>h</sup> Vide Barbeirac *form. Med.* p. 163.

<sup>i</sup> "The trials of the Uva Ursi made in this country, have by no means answered expectation: in all the cases that have come to my knowledge it produced great sickness and uneasiness, without any apparent benefit, though continued for a month." *Lewis M. M.* p. 683. And in a case of Incontinence of urine, Dr. Fothergill observes, "The Uva Ursi, so much extolled of late in ulcers of the urinary passages, seemed but to aggravate the symptoms." *Med. Obs. & Inquir.* vol. iii. p. 144. But in the preface to this volume we are told, "that the Uva Ursi had been frequently prescribed successfully by many of the Members of the *Society of Physicians in London*."

<sup>k</sup> See his *Exp. Essays*, p. 154.

<sup>l</sup> The calculi were macerated in a strong decoction of the Uva Ursi. *Vide l. c.*





*Syrax officinale*

Published by Dr Woodville. March. 1. 1791.



his chapter on Astringents,<sup>m</sup> notices the dissertation of De Heucher, under the title of *Calculus per adstringentia pellendus*: and though he does not think with this author that astringents are lithontriptics, yet from his own experience, and that of others, he believes they often have a powerful effect in relieving calculous symptoms; and in proof of this he refers to the exhibition of the Uva Ursi. The leaves may be employed either in powder or decoction; the former is most commonly preferred, and given in doses from a scruple to a dram two or three times a day.

<sup>m</sup> *Mat. Med. vol. ii. p. 12. & seq.* And Dr. Withering, speaking of the effects of this plant, says, "Perhaps, upon the whole, we shall find it no better than other vegetable astringents; some of which have long been used by the country people in gravelly complaints, and with very great advantage; though hitherto unnoticed by the regular practitioners." *l. c.*

## STYRAX OFFICINALE.

## OFFICINAL STORAX.

Styrax, *Pharm. Lond. & Edinb.* ab hac arbore effluit.

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*SYNONYMA.* Styrax folio mali cotonei. *Bauh. Pin. p. 452.*  
Styrax arbor. *J. Bauh. Hist. vol. i. p. 341. Gerard. Emac. p. 1526. Raii Hist. p. 1680. Styrax arbor vulgaris. Park. Theat. p. 1530. Lin. Spec. Plant. p. 635. Miller's Figures, p. 260.*

*Class* Decandria. *Ord.* Monogynia. *Lin. Gen. Plant. 595.*

*Eff. Gen. Ch.* Cal. inferus. Cor. infundibuliformis. *Drupa* 2-sperma.

*Sp. Ch.* S. foliis ovatis subtus villosis, racemis simplicibus folio brevioribus. *Ait. Hort. Kew.*

THE Storax-tree usually rises above twenty feet in height; it sends off many strong branches, which are covered with a roughish bark of a grey colour: the leaves are broad, elliptical, entire, somewhat pointed, on the upper surface smooth, and of a light green colour, on the under surface covered with a whitish down; they are placed

placed alternately, and stand upon short footstalks: the flowers are large, white, and disposed in clusters upon short peduncles, which terminate the branches: the corolla is monopetalous, funnel-shaped, and divided at the limb into five lance-shaped segments: the filaments are ten, placed in a regular circle, and seem to adhere towards the base: the antheræ are erect and oblong: the germen is oval, and supports a slender style, with a simple stigma: the fruit is a pulpy pericarpium, which contains one or two nuts of an oval compressed figure. It is a native of Italy and the Levant, and flowers in July.

Gerard appears to be the first who cultivated the Storax-tree in England; and although it is indigenous to many of the southern parts of Europe, yet the resinous drug which it produces is only to be obtained in perfection from these trees growing in Asiatic Turkey.<sup>a</sup> The Storax issues in a fluid state from incisions made in the bark of the trunk, or branches, of the tree; and as it was formerly the custom to collect and export this gum-resin in reeds, it obtained the name of *Styrax calamita*. But the only two kinds of Storax<sup>b</sup> now to be met with in the shops may be divided into the pure and the common Storax; the first is usually in irregular compact masses, free from impurities, of a yellowish or reddish brown appearance, and interspersed with whitish tears, somewhat like Gum ammoniac or Benzoin; it is extremely fragrant, and, upon the application of heat, readily melts. This has been called Storax in the lump, red Storax, and the separate tears, Storax in the tear. The common Storax is in large masses, very light, and bears no external resemblance whatever to the former Storax, as it seems almost wholly composed of dirty saw-dust merely caked together by the resinous matter; and though much less esteemed than the purer kinds of Storax, yet when freed from the

<sup>a</sup> “Copia ejus effluit ex arboribus procerioribus in Gallo-Provinciæ sylvis (de la Chartreuse de Montrieu, Du Hamel *Traité des arbres tom. ii. p. 288*), item incisione promanat in planitie quadam agri Tiburtini montium catena septentrionem versus cincta. (Mazeas, *Journal des Sçavans*, 1769. p. 105. *Ed. in 4<sup>to</sup>*). Sed quæ in officinis servatur, orientalis originis est, transferturque ad nos ex Turcia per Massiliam.” *Murray App. Med. vol. ii. p. 80.*

<sup>b</sup> It is necessary to observe, that no reference is here made to the *Styrax liquida*, which is produced from a very different tree, viz. the *Liquidamber styraciflua*; and, according to Monardes, is obtained by boiling the branches in water, which occasions the drug to separate, and rise to the surface, when it is skimmed off for use.

woody part, we are told that it possesses more fragrance, and is superior to the other kind. Rectified spirit, the common menstruum of resins, readily dissolves the Storax, which may be inspissated to a solid consistence, as directed for the *Styracis purificatio* in the London Pharm. without sustaining any considerable loss of its sensible qualities.

“ Common Storax, infused in water, imparts to the menstruum a  
 “ gold yellow colour, some share of its smell, and a slight balsamic  
 “ taste. It gives a considerable impregnation to water by distillation,  
 “ and strongly diffuses its fragrance when heated, though it scarcely  
 “ yields any essential oil. The spirituous solution, gently distilled  
 “ off from the filtered reddish liquor, brings over with it very little  
 “ of the fragrance of the Storax; and the remaining resin is more  
 “ fragrant than the finest Storax in the tear, which I have met with.  
 “ The pure resin distilled without addition, yields along with an  
 “ empyreumatic oil, a portion of saline matter, similar to the  
 “ flowers of Benzoine: I have sometimes also extracted from it a  
 “ substance of the same nature by coction in water.”<sup>c</sup>

Storax, with some of the ancients, was a familiar remedy as a resolvent, and particularly used in catarrhal complaints, coughs, asthmas, menstrual obstructions, &c. and from its affinity to the balsams it was also prescribed in ulcerations of the lungs, and other states of pulmonary consumption. And our pharmacopœias formerly directed the *pilulæ e styrace*; but this odoriferous drug has now no place in any of the officinal compounds; and though a medicine which might seem to promise some efficacy in nervous debilities, yet by modern practitioners it is almost totally disregarded.

<sup>c</sup> Lewis Mat. Med. p. 621.



## STYRAX BENZOIN.

## BENJAMIN TREE.

Benzoë, *Pharm. Lond. & Edinb.* ex hac arbore exsudat.

*SYNONYMA.* Benjui. *Garcias ab Horto* in *Clusii Exoticis*, p. 155. Arbor Benzoini. *Grimm.* in *Ephemer. Acad. Nat. Curios.* Dec. 2. Ann. 1. p. 370. fig. 31. *Sylvius* in *Valentini Historia Simplicium*, p. 487.

Benzuin. *Radermacher* in *Act. Societ. Bataviæ*, vol. iii. p. 44.

Benjamin or Benzoin. *Marsden's Hist. of Sumatra*, p. 123.

*Laurus Benzoin.* *Houttuyn* in *Act. Harlem.* vol. xxi. p. 265. tab. 7.  
See *Dryander's Botanical Description of the Benjamin Tree of Sumatra.* *Phil. Transf.* vol. lxxvii. p. 307.

*Class* Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 595.

*Eff. Gen. Ch.* Cal. inferus. Cor. infundibuliformis. *Drupa* 2-sperma.

*Sp. Ch.* S. foliis oblongis acuminatis subtus tomentosis, racemis compositis longitudine foliorum. *Dryander. l. c.*

THIS tree is of quick growth, and rises to a considerable height: it sends off many strong round branches, which are covered with a tomentose or whitish downy bark: the leaves are oblong, entire, veined, tapering to a long point, on the upper surface smooth, on the under downy; they stand alternately upon short footstalks, which are round, scored, and downy: the flowers are produced in bunches, and usually hang all on the same side upon short slender pedicles: the racemi, or common peduncles, are nearly of the length of the leaves, compound or branched, downy, and arise from the axillæ of the leaves: the calyx is short, bell-shaped, downy, and divided at the extremity into five obscure imperfect teeth: the corolla is monopetalous, externally of a cineritious colour, downy, and cut into five obtuse



*Styrac Benzoin*

Published by D.<sup>r</sup> Woodville March 1 1791.





obtuse parallel segments growing close together: the filaments are ten, of the length of the calyx, adhering at the base, bearded towards the top, forming a circle upon the receptacle in which they are inserted, and crowned with linear erect antheræ: the germen is oval, downy, and placed above the insertion of the corolla: the style is filiform, longer than the stamina, and terminated with a simple stigma: the fruit is similar to that of the *Styrax officinale*.\*

The botanical character of this tree was entirely mistaken by modern botanists, even till the year 1787, when that excellent naturalist, Mr. Dryander, fully ascertained it to be a *styrax*.<sup>a</sup> This was done at the request of Sir Joseph Banks, who obtained a proper specimen for the purpose from Mr. Marsden at Sumatra: and as we have copied the figure given by Mr. Dryander, we shall also transcribe the following observations with which it is introduced. “ Though GARCIAS AB HORTO, GRIM, and SYLVIUS,<sup>b</sup> were acquainted with the real tree from which Benjamin, or Benzoin, is collected, their descriptions of it are so imperfect and insufficient for its botanical determination, that succeeding botanists have fallen into many errors concerning it; and it is remarkable, that although this drug was always imported from the East-Indies, most of the later writers on the *Materia Medica* have conceived it to be collected from a species of *Laurus*, native of

\* Descriptio botanica a cl. Dryander.

*Rami* teretes, tomentosi.

*Folia* alterna, petiolata, oblonga, integerrima, acuminata, venosa, supra glabra, subtus tomentosa, palmaria. *Petioles* teretes, striati, canaliculati, tomentosi, brevissimi.

*Racemi* axillares, compositi, longitudine fere foliorum. *Pedunculi communes* tomentosi; *partiales* alterni, patentes, tomentosi. *Pedicelli* brevissimi. *Flores* secundi.

*Calyx* campanulatus, obsolete quinquedentatus, extus tomentosus, linea longior.

*Petala* quinque, (basi forte connata) linearia, obtusa, extus tomento tenuissimo cinerea, calyce quadruplo longiora.

*Filamenta* decem, receptaculo inserta, petalis paulo breviora, inferne connata in cylindrum longitudine calycis, superne infra antheras ciliata. *Antheræ* lineares, filamentis longitudinaliter adnatæ, iisque dimidio breviores.

*Germen* superum, ovatum, tomentosum. *Stylus* filiformis, staminibus longior. *Stigma* simplex.

<sup>a</sup> L. c. Before this time however Sir Joseph Banks seemed to have no doubt that the Benjamin-tree was a *styrax*. Vide LODER in BALDING. *Med. Journ.* P. 5. p. 50.

<sup>b</sup> Vide lib. in *Synon. cit.*

Virginia,

Virginia, to which, from this erroneous supposition, they have given the trivial name of Benzoin. This mistake seems to have originated with Mr. RAY, who in his *Historia Plantarum*, vol. ii. p. 1845, at the end of his account of the *Arbor Benivifera* of GARCÍAS, says, “ Ad nos scripsit D. *Tancredus Robinson* Arborem resiniferam odoratam foliis citrinis prædictæ haud absimilem transmissam fuisse e Virginia a D. Banister, ad illustrissimum Præfulem D. Henr. Compton, in cujus instructissimo horto culta est. — Arbor ista Virginiana Citrii, vel Limonii foliis Benzoinum fundens, in horto reverendissimi Episcopi culta.” This error was detected by Linnæus, but another was substituted by him in its place;<sup>c</sup> for in his *Mantissa Plantarum Altera* he tells us, that Benjamin is furnished by a shrub described there under the name of *Croton Benzoë*, and afterwards, in the *Supplementum Plantarum*, describes again the same plant, under the name of *Terminalia Benzoin*. M. Jacquin, who had been informed that this shrub was called by the French *Bienjoint*, supposes, with reason, that the similar sound of that word with Benjoin, the French name for Benjamin, may have occasioned this mistake.<sup>d</sup> Since that period, Dr. Houttuyn has described the Benjamin tree of Sumatra; but for want of good specimens has been so unfortunate as to mistake the genus to which it belongs.”<sup>e</sup>

This tree, which is a native of Sumatra, is deemed, in six years, of sufficient age for affording the Benzoin, or when its trunk acquires about seven or eight inches in diameter; the bark is then cut through longitudinally, or somewhat obliquely, at the origin of the principal lower branches,<sup>f</sup> from which the drug exudes in a liquid state, and by exposure to the sun and air soon concretes, when it is scraped off from the bark with a knife, or chissel. The quantity of Benzoin which one tree affords never exceeds three pounds,<sup>g</sup> nor are the trees found to sustain the effects of these annual incisions longer than ten or twelve years.<sup>h</sup> The Benzoin which issues first from the wounded

<sup>c</sup> This discovery was not made till after the publication of his *Spec. Plant.* where it stands as a laurus.

<sup>d</sup> *Hort. Vindob.* vol. iii. p. 51.

<sup>e</sup> Houttuyn had the specimens from Rademacher, from which he determined the tree to be a laurus.

<sup>f</sup> Vide *Grimm & Marsden*, l. c. p. 124.

<sup>g</sup> *Grimm*. l. c.

<sup>h</sup> *Marsden*. l. c.



bark is the purest, being soft, extremely fragrant, and very white ; that, which is less esteemed, is of a brownish colour, very hard, and mixed with various impurities, which it acquires during its long continuance upon the trees.<sup>1</sup> Eschelskron <sup>k</sup> distinguishes Benzoine into three kinds, viz. *Camayan poeti*, or white Benjamin, which, upon being melted in a bladder by the heat of the sun, appears marked with red streaks, or veins. *Camayan bamatta* is less white than the former, and often spotted with white circles, called eyes, from the number of which its goodness is estimated: it likewise melts by the heat of the sun. *Camayan itam*, or black Benjamin, which requires to be melted in hot water for its preservation in bladders. In Arabia, Persia, and other parts of the East the coarser kinds of Benjamin are consumed for fumigating and perfuming the temples, and for destroying insects.

The Benzoine which we find here in the shops “ is in large brittle masses, composed partly of white, partly of yellowish or light brown, and often also of darker coloured pieces: that which is clearest, and contains the most white matter, called by authors *benzoe amygdaloides*, is accounted the best.” “ This resin has very little taste, impressing on the palate only a slight sweetness: its smell, especially when rubbed or heated, is extremely fragrant and agreeable. It totally dissolves in rectified spirit, the impurities excepted, which are generally in a very small quantity, into a deep yellowish red liquor, and in this state discovers a degree of warmth and pungency, as well as sweetness. It imparts, by digestion, to water also a considerable share of its fragrance, and a slight pungency: the filtered liquor, gently exhaled, leaves, not a resinous or mucilaginous extract, but a crystalline matter, seemingly of a saline nature, amounting to one-tenth, or one-eighth, of the weight of the Benzoine.”<sup>1</sup> Exposed to the fire in proper vessels, it yields a quantity of a white saline concrete, called flores benzoës, of an acidulous taste, and grateful odour, soluble in rectified spirit, and in water by the assistance of heat.

As the trees, which afford the drugs benzoine and styrax, are congeners, and as their resinous products are very similar in their external appear-

<sup>1</sup> Grimm. l. c.    \* Cfr. Eschelskron *Beschreib. von Sumatra*. p. 62.

<sup>1</sup> Lewis M. M. p. 142.



ances, and not widely different in their sensible qualities, it is reasonable to suppose them analogous in their medicinal effects. Benzoine, however, though rarely employed in a simple state, has been frequently prescribed as a pectoral; and we find it recommended for inveterate coughs, asthmas, obstructions of the lungs, and phthysical complaints, unattended with much fever: it has also been used as a cosmetic, and in the way of fumigation for the resolution of indolent tumours. Dr. Cullen, who classes Benzoine with the stimulants, says, "The flowers, which is the only preparation employed, are manifestly a saline substance of the acid kind, of considerable acrimony and stimulant power, as I have found in every trial of them I have made. It has been recommended as a pectoral, and I have employed it in some asthmatic cases without finding it of use; and in a dose of half a dram it appeared to be heating and hurtful."<sup>m</sup> In the pharmacopœias the flowers are directed in the *tinctura opii camphorata*, and it is ordered in substance in the *tinctura benzoës composita*.

<sup>m</sup> *Mat. Med. vol. ii. p. 192.* We may also notice, that Dr. Cullen thinks "the benzoine is a singular composition of an acid salt with an oily and resinous substance; but as a saline matter of the same kind is found in most of the turpentine and balsams—it appears to me, that the benzoin affords an analogy for explaining the composition of all these."

## APIUM PETROSELINUM.





*Apium Petroselinum*

Published by D<sup>r</sup> Woodville March 1. 1791.



## APIUM PETROSELINUM. COMMON PARSLEY.

*SYNONYMA.* Petrofelinum. *Pharm. Lond. & Edinb.* Apium hortense vulgo Petrofelinum. *Baub. Pin. p.* 153. Petrofelinum vulgare. *Park. Theat. p.* 922. Apium hortense. *Gerard. Emac. p.* 1013. *Raii Hist. p.* 1448.

α Apium fativum. *Riv. pent.* 88. Common Parsley.

β Apium crispum. *Riv. pent.* 90. Curled Parsley.

γ Apium radice esculenta. *Hort. Ups.* 67. Large rooted Parsley.

*Aiton's Hort. Kew.*

*Class* Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 367.

*Ess. Gen. Ch.* *Fructus* ovatus, striatus. *Involucrum* 1-phyllum. *Petala* æqualia.

*Sp. Ch.* A. foliolis caulinis linearibus, involucellis minutis.

THE root is biennial, long, white, and beset with fibres: the stem is upright, round, scored, branched, jointed, and usually rises two feet in height: the radical leaves are with footstalks, compound, pinnated in ternaries: the leaflets are smooth, veined, divided into three lobes, and notched at the margin: the leaves of the stalk proceed from the vaginal sheaths at the joints, and have the leaflets cut into narrow linear entire segments: the flowers are small, of a yellow colour, and terminate the stem and branches in umbels composed of general and partial radii; the former are about ten in number, and the latter twenty in each umbel; it seldom has a general involucre, but the partial involucre consists of six or eight leaflets, unequal, pointed, spreading, and shorter than the umbel: the corolla consists of five oval petals, which have their points inflected: the filaments are five, spreading, slender, twice the length of the corolla, and crowned with roundish antheræ: the germen is oval, striated, and supports two short reflected styles, terminated with obtuse stigmata: the seeds are of a dark green colour, oblong, angular, striated, flat on one side, and convex on the other. It is a native of Sardinia, and flowers in June and July.

All

All the varieties of Parsley have been long very generally cultivated in England,<sup>a</sup> and its frequent use for culinary purposes renders it more familiar than most of the plants which our kitchen gardens produce. Both the roots and seeds of Parsley are directed by the London College for medicinal use; the former have a sweetish taste, accompanied with a slight warmth or flavour, somewhat resembling that of a carrot: the latter are in taste warmer, and more aromatic than any other part of the plant, and also manifest considerable bitterness. In distillation, three pounds yielded above an ounce of essential oil, a great part of which sunk in the fluid. They give out little of their qualities by infusion in watery menstrua, but readily impart all their virtue to rectified spirit. The roots, by distillation in water, were found to yield a very considerable portion of essential oil, not above two or three drams from as many hundred pounds of the root.<sup>b</sup> These roots are said to be aperient and diuretic, and have been employed in apozems, to relieve nephritic pains, and obstructions of urine.<sup>c</sup> In this way they have been prescribed by Dr. Cullen without producing any diuretic effect, and this he thinks may in some measure be attributed to the loss of their active matter, which they sustain in boiling.<sup>d</sup> The seeds, like those of many other umbelliferous plants, possess a share of aromatic and carminative power; but as this is inconsiderable they are now seldom employed.† The bruised leaves have been successfully used as a decutient poultice to various kinds of tumours.<sup>e</sup> Although Parsley is so commonly used at table, it is remarkable that facts have been adduced to prove that in some constitutions it occasions epilepsy, or at least aggravates the epileptic fits in those who are subject to this disease.<sup>f</sup> It has been supposed also to produce inflammation in the eyes.<sup>g</sup>

<sup>a</sup> Cultivated in 1551. *Turn. Herb. part. 1. sign. D iii.* Vide *Aiton's Hort. Kew.*

<sup>b</sup> Lewis, *Mat. Med. p. 499.* <sup>c</sup> See Hoffman and others. <sup>d</sup> *Mat. Med. p. 159.*

† Externally they have been advantageously used for destroying cutaneous insects in children. Vide *Con. Mich. Valentini Act. Nat. Cur. vol. i. p. 285.* and *Rosenstein Barns junkd. Ed. 3. p. 533.*

<sup>e</sup> We are told by Lange, (*Misc. verit. med. p. 26*) that this application has succeeded in scirrhus tumours where *Cicuta* and *Mercury* had failed.

<sup>f</sup> *Hannemannus, in Eph. Nat. Cur. Dec. 3. A. 3. p. 78.* And *Marriotte in Journ. de Med. t. 23. p. 545.* <sup>g</sup> See *Boyle's Works, t. 1. p. 503.* *Alston's Lect. on M. M. vol. i. p. 381.* And cited by *Murray.*

RIBES RUBRUM.







*Ribes rubrum*

Published by D.<sup>r</sup> Woodville March 1 1761.

## RIBES RUBRUM.

## RED CURRANT.

*SYNONYMA.* Ribes rubrum. *Pharm. Lond.* Ribes vulgaris fructu rubro. *Gerard. Emac. p.* 1593. *Raii Hist. p.* 1485. *Synop. p.* 456. Ribes fructu rubro. *Park. Theat. p.* 1561. Ribes vulgaris acidus ruber. *J. Baub. Hist. ii. p.* 97. Grossularia, multiplici acino, five non spinosa hortensis rubra. *Baub. Pin. p.* 455. Ribes inerme floribus planiusculis stipulis minimis. *Hal. Stirp. Helv. n.* 818. *Hudson Flor. Aug. p.* 99. *Withering. Bot. Arrang. p.* 243.

α Ribes rutilum. *Red Currant.*

β Ribes album. *White Currant.*

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 281.

*Eff. Gen. Ch.* Petala 5 et Stamina calyci inserta. Stylus 2-fidus. Bacca polysperma, infera.

*Sp. Ch.* R. inerme, racemis glabris pendulis, floribus planiusculis.

THIS shrub grows five or six feet in height, is divided into many branches, and covered with a dark brown bark, except that of the young branches which is whitish or ash-coloured: the leaves are serrated, veined, divided into five, and sometimes seven lobes, of a pale green colour, and stand upon tapering footstalks, which are about the length of the leaves, and hairy towards the base: the bractæ are small, oval, pointed, and placed at the base of the leaf stalks and peduncles: the flowers grow in lateral pendulous racemi, or clusters, and appear in April: the calyx is divided into five spreading, reflexed, pointed, oblong, concave, permanent segments, which are of a yellowish green colour: the corolla is composed of five small obtuse upright petals, of a yellowish colour, and inserted in the calyx: the filaments are five, tapering, erect, and inserted in the calyx: the antheræ are compressed, gaping at the edges, and attached at their sides to the



filaments: the germen is roundish, placed below the corolla, and supports a cloven style, with obtuse stigmata: the fruit is a round shining red berry, of one cell, separated into two receptacles, and containing many roundish seeds. It is a native of Britain, and usually grows in dry woodlands.

As the white Currant-tree is merely a variety of the red, the fruit of both, whether considered in a botanical or medical sense, is perfectly analogous; therefore what is observed here of the latter will apply equally to the former.

It is well known that the red Currant is abundantly cultivated in our gardens, whence we are plentifully supplied with the fruit, which, from its grateful acidity, becomes universally acceptable, either as nature presents it, or variously prepared by art<sup>a</sup> with the addition of sugar. By Dr. Cullen, this fruit is classed with the alimentary plants, and from being generally and exclusively considered as such, it was not received in the British catalogues of the *Materia Medica* till that published in the last edition of the *London Pharmacopœia*.

The medicinal qualities of red Currants appear to be similar to those of the other subacid fruits, which are esteemed to be moderately refrigerant, antiseptic, attenuant,\* and aperient. They may be used with considerable advantage to allay thirst in most febrile complaints; to lessen an increased secretion of bile;<sup>b</sup> and to correct a putrid and scorbutic state of the fluids, especially in sanguine temperaments: but in constitutions of a contrary kind, they are apt to occasion flatulency and indigestion.

<sup>a</sup> "The juice is a most agreeable acid in punch. If equal weights of picked currants and pure sugar are put over the fire, the liquor that separates spontaneously is a most agreeable jelly." *Withering. l. c.* The juice of red currants, with sugar, is a common beverage at Paris, where it is generally preferred to orgeat, or lemonade.

\* Hoffman and Boerhaave had great confidence in the efficacy of these fruits in obstinate visceral obstructions.

<sup>b</sup> See *Maclurg on the Bile*, where the effects of the vegetable acid are considered.

RIBES NIGRUM.







*Ribes nigrum*

## RIBES NIGRUM.

## BLACK CURRANT.

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*SYNONYMA.* *Ribes nigrum.* *Pharm. Lond.* *Ribes nigrum* vulgo dictum folio olente. *J. Baub. Hist. ii. p. 98.* *Raii Hist. p. 1486.* *Synop. p. 456.* *Grossularia non spinosa fructu nigro.* *Baub. Pin. p. 455.* *Ribes fructu nigro.* *Park. Theat. p. 1562.* *Gerard. Emac. p. 1593.* *Ribes inerme, olidum, calyce oblongo, petalis ovatis.* *Hall. Stirp. Helv. n. 819.* *Hudson Flor. Ang. p. 99.* *Withering. Bot. Arrang. p. 243.*

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 281.*

*Eff. Gen. Ch.* *Petala 5 et stamina calyci inferta.* *Stylus 2-fidus.*  
*Bacca polysperma, infera.*

*Sp. Ch.* *R. inerme, racemis pilosis, floribus oblongis.*

THE Black Currant-tree usually rises six or seven feet in height: the old wood is covered with a dark brown or blackish bark, but that of the younger shoots is of a whitish colour: the leaves are commonly divided into three lobes, much veined, irregularly serrated, of a deep green colour, and on the under side beset with many yellowish glands, which secrete an odoriferous fluid, impregnating the whole leaf; the leaf-stalks are similarly shaped to those of the red currant: the bractææ, or floral leaves, are oval, short, and woolly: the flowers are produced in pendent bunches, upon slender pedicles, placed alternately upon the common racemus, or peduncle: the calyx is divided into five oval spreading segments, of a pale green or yellowish colour: the corolla is composed of five roundish petals: the nectarium is larger than that in the red currant, and the fruit or berries are black. In other respects, the parts of fructification correspond with the description already given of the red currant. It is a native of Britain, preferring a swampy ground, and flowers in May.

The



The berries of the black Currant are larger than those of the red ; and we are told that in some parts of Siberia they grow to the size of an hazel nut. Besides having the properties in common with the *fructus acido-dulces*, these berries are also said to be peculiarly useful in sore throats, and to possess a diuretic power in a very considerable degree. From those qualities which they manifest to the organs of taste, there can be little doubt but that in cases of inflammatory angina, they may be advantageously employed to answer the same intentions as gargles :<sup>a</sup> the proofs however of their diuretic powers seem to want confirmation, as Forestus, on whose authority they rest, and who first noticed this property of the black currant, constantly prescribed it in combination with the seeds of wild carrot.<sup>b</sup>

The leaves of the black Currant are extremely fragrant, and have been likewise recommended for their medicinal virtue, which Bergius states to be mundificans, pellens, diuretica.<sup>c</sup>

The officinal preparations of the black currant berries, in the London Pharmacopœia, are the *syrupus ribis nigri*, and the *succus ribis nigri inspissatus*.

<sup>a</sup> From their efficacy in this way they acquired the name of Squinancy berries.

We may observe here, that the black currant jelly in common domestic use for this purpose, is rendered less efficacious by having too much sugar in its preparation.

Both the fruit of this, and of the red currant, afford a pleasant wine ; and that made of the former is mentioned by Haller, “ Ex eo optimum vinum fieri non deterius vinis verioribus viteis, quando annum est.” l. c. Smith *Nat. Hist. of Cork*, p. 359.

<sup>b</sup> *Opp. Lib. 25. Obs. 10.*

<sup>c</sup> *Mat. Med. vol. i. p. 155.* An infusion of these leaves is said to have the taste of green tea ; and when prepared from the young leaves, is to some people peculiarly agreeable.

QUASSIMA SIMARUBA.





*Quasiparula timarula*

Published by D. Woodville April 1 1791



## QUASSIA SIMARUBA.

## SIMARUBA QUASSIA.\*

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*SYNONYMA.* Simrouba. *Pharm. Lond. & Edinb.* Simaruba amara. *AUBLET Hist. des Plantes de la Guiane Française. tom. ii. p. 859. tab. 331, 332.* Euonymus fructu nigro tetragono, vulgo Simarouba. *BARRERE France equinoxiale. p. 50.* Le Simarouba vel Bois amer. *DES MARCHAIS Voyages en Guinée et à Cayenne, vol. ii. p. 124.* *BANCROFT'S Nat. Hist. of Guiana, p. 84.* A Botanical and Medical account of the Quassia Simaruba. *WRIGHT in the Transactions of the Royal Society of Edinb. vol. ii. p. 73. & seq.*

*Class* Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 529.

*Eff. Gen. Ch.* *Cal.* 5-phyllus. *Petala* 5. *Nectarium* 5-phyllum.  
*Pericarpia* 5, distantia, 1-sperma.

*Sp. Ch.* *Q.* floribus monoicis, foliis abrupte pinnatis: foliolis alternis subpetiolatis, petiolo nudo, floribus paniculatis. *Suppl. Plant.*

THIS tree grows to a considerable height and thickness, and sends off alternate spreading branches: the bark, which covers the trunks of the old trees, is black, and a little furrowed, but that of the younger trees is smooth, grey, and here and there marked with broad spots of a yellow colour: the wood is hard, white, and without any remarkable taste: the leaves are numerous, and stand alternately upon the branches; each leaf is composed of several pinnæ, nearly of an elliptical shape, on the upper side smooth, and of a deep green colour, on the under side whitish, and stand alternately upon short footstalks: the flowers are of a yellow colour, and placed on branched spikes, or long panicles: the calyx is small, and cut into five obtuse erect segments: the corolla is divided into five petals, which are sessile,

\* "This tree is known in Jamaica by the names of Mountain Damson, Bitter Damson, and Stave-wood. The shops are supplied with this bark from Guiana; but now we may have it from our own islands at a moderate expense." *Wright. l. c.*

equal, lance-shaped, bent outwards, and triple the length of the calyx, into which they are inserted: the nectarium is composed of ten oval hairy scales, inserted at the base of the filaments: the stamina are ten, slender, equal, about the length of the corolla, and furnished with long antheræ: the receptacle is a fleshy substance, of an orbicular shape, and marked with ten furrows. The female flower, (according to Dr. Wright, whose figure of the male plant we have given) is never found at Jamaica on the same tree which produces the male flower; it is furnished with five roundish germina adhering together: the style is cylindrical, erect, about the length of the corolla, and divided at the top into five recurved persistent stigmata: the fruit is an oval, black, smooth, fleshy, soft pulp, or drupa; the number of these drupæ is five on each common receptacle, but seldom more than two or three arrive at perfect maturity, when each contains an oblong pointed nut with a flattish kernel. It is a native of S. America and the West Indies, and flowers in April.

Although the medicinal bark, which the roots of this tree are known to furnish, was first imported into Europe in the year 1713, it is but a few years since the Simaruba was botanically ascertained.

Linnæus at first supposed it to be the *Pistacia foliis pinnatis deciduis, foliolis ovatis*; but in the second edition of his *Species plantarum* and *Mat. Med.* it is recorded as the *Bursera gummiifera*, and both these genera are referred to the *Terebinthus major* of Sloane, or the Birch turpentine-tree of Browne. However Jacquin, who examined the root of the *Bursura*, and compared its bark with that of *Simaruba*, found it to be very different. Linnæus therefore in his observations on the *Mat. Med.* published in 1772, very properly mentions it among those plants which are not sufficiently determined. About this time the *Simaruba* tree was discovered and investigated at Guiana by Aublet, and at Jamaica by Dr. Wright, from whose specimens it evidently appears to be a *Quassia*, and under this name it has since been described by the younger Linnæus in the *Supp. Plantarum*. Dr. Wright, to whose botanical researches we are much indebted, says, "in 1773, specimens of the fructification were sent (from Jamaica) in spirits, accompanied with a botanical account of the tree, to my late worthy friend Dr. Hope, Professor of Botany in the University of Edinburgh; also some dried bark from the roots.

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The following year specimens with similar description, were transmitted to my late learned friend Dr. John Fothergill of London, who sent them to the celebrated Linnæus at Upsal, as appears by Professor Murray's *Apparatus Medicaminum*.<sup>a</sup> Dr. Fothergill caused elegant drawings to be made of this plant, and these drawings I now have the honour of presenting to the Royal Society of Edinburgh."<sup>b</sup> By the assistance of Mr. Alexander Anderson a plant of this species has been lately introduced into the Royal garden at Kew.<sup>c</sup> The cortex Simarubæ of the shops is the bark of the roots of this tree, which, according to Dr. Wright, "is rough, scaly, and warted. The inside, when fresh, is a full yellow, but when dry, paler: it has but little smell: the taste is bitter, but not disagreeable." "Macerated in water, or in rectified spirit, it quickly impregnates both menstrua with its bitterness, and with a yellow tincture. It seems to give out its virtue more perfectly to cold, than to boiling, water; the cold infusion being rather stronger in taste than the decoction; which last, of a transparent yellow colour whilst hot, grows turbid and of a reddish brown, as it cools. The milky appearance, which Jussieu says it communicates to boiling water, I have not observed in the decoction of any of the specimens which I have examined."<sup>d</sup>

This bark was first sent from Guiana to France in 1713 to the Count de Porchartrain, then Secretary of State, as a remedy of great efficacy in dysentery. In the years 1718 and 1723, an epidemic flux prevailed very generally in France, which resisted all the medicines usually employed in such cases; small doses of ipecacuanha, mild purgatives, and all astringents were found to aggravate, rather than to relieve, the disease: || under these circumstances, recourse was had to the cortex Simarubæ, which proved remarkably successful,

<sup>a</sup> Qualis vera ejusdem arbor sit, jamjam Aubletii indagine cognoscimus; ut tamen et mihi monere incumbat, b. *Linneum*, Equitem, litteris jam a. 1776. ineunte mihi datis, antequam Aubletii elegantissimum opus illi innotesceret, significasse, Simarubum Quassiaæ speciem a se haberi. Ille autem Simarubæ cortex, quo cl. *Wright* (Conf. *Bibl. mea med.* v. iii. p. 483) arborem in Jamaica vulgarem vestitam esse innuit, pariter in alvi profluviiis efficaci, discrepat a vulgo usitato cortice, ut specimine mihi missò reperio, quod scilicet tenue est, tenacius, longe pallidius, obtectum extrinsecus verrucis exiguis fere stipitatis, valde amarum." Vol. iii. p. 458.

<sup>b</sup> L. c. p. 74.

<sup>c</sup> See Aiton's *Hort. Kew.* <sup>d</sup> Lewis *Mat. Med.* p. 606. || See Wright, l. c.

and



and first established its medical character in Europe.† Dr. Wright says, “ most authors who have written on the Simaruba, agree, that in “ fluxes it restores the lost tone of the intestines, allays their spasmodic “ motions, promotes the secretions by urine and perspiration, removes “ that lowness of spirits attending dysenteries, and disposes the patient “ to sleep; the gripes and tenesmus are taken off, and the stools are “ changed to their natural colour and consistence. In a moderate dose “ it occasions no disturbance or uneasiness, but in large doses it pro- “ duces sickness at the stomach and vomiting.

“ Modern physicians have found from experience, that this medicine “ is only successful in the third stage of dysentery, where there is no “ fever, where too the stomach is no way hurt, and where the gripes “ and tenesmus are only continued by a weakness of the bowels. In “ such cases, Dr. Monro gave two or three ounces of the decoction every “ five or six hours, with four or five drops of laudanum; and found “ it a very useful remedy. The late Sir John Pringle, Dr. Huck “ Saunders, and many others, prescribed the cortex simaruba in old and “ obstinate dysenteries and diarrhoeas, especially those brought from “ warm climates. Fluxes of this sort, which were brought home from “ the siege of Martinico and the Havannah, were completely and “ speedily cured by this bark. The urine, which in those cases had “ been high coloured and scanty, was now voided in great abundance, “ and perspiration restored. Dr. James Lind at Haflar Hospital, says, “ that the Simaruba produced these effects sooner and more certainly, “ when given in such quantity as to nauseate the stomach. Dr. Huck “ Saunders remarks, that if the Simaruba did not give relief in three “ days, he expected little benefit from its farther use; but others have “ found it efficacious in fluxes, after a continued use for several weeks. — “ My own experience, and that of many living friends, are

† Jesuitæ patri *Soleil* collegio Parisino adscripto anno 1713, quædam hujus corticis specimina miserunt, ille in dysenteria gravi, quæ anno 1718, Parisiis furebat, jussu Regio, fuit tentatus, bonos inde observatos effectus, anno 1723, reiterata experimenta uberius confirmarunt, variis itaque in locis in usum tractus efficaciam suam in sistenda dysenteria ubivis probavit Degner, Schwenk, Tissot, Grashuis, Boënnicken, Werlhoff, testibus, efficacem quoque in alvi fluxu chronico & lienteria Schwenk, Tissot, Boënnicken Jussieu sunt experti, in hæmorrhagia uteri Du Buïsson & Jussieu: has ejus virtutes non modo a vi adstringente, qua pollet, pendere, sed illam ipsam materiem quoque horum morborum corrigere & e corpore educere, Schwenk & Jussieu ex eo probant, quod sub ejus usu excretiones aquosæ promoveri observentur. Spielman *Med. Med.* p. 228.

convincing





*Quasipia amara*

Published by W. Woodville April 1 1791.



“convincing proofs to me of the efficacy of this medicine, and I hope  
“the Simaruba bark will soon be in more general use.”<sup>c</sup>

Dr. Wright recommends two drams of the bark to be boiled in twenty-four ounces of water to twelve; the decoction is then to be strained and divided into three equal parts, the whole of which is to be taken in twenty-four hours, and when the stomach is reconciled to this medicine, the quantity of the bark may be increased to three drams. To this decoction some join aromatics, others a few drops of laudanum to each dose.

<sup>c</sup> L. c. p. 78 It may here be remarked, that Dr. Cullen says, “we can perceive nothing in this bark but that of a simple bitter, the virtues ascribed to it in dysentery have not been confirmed by my experience, or that of the practitioners in this country; and leaving what others are said to have experienced to be further examined and considered by practitioners, I can only at present say, that my account of the effect of bitters will perhaps explain the virtues ascribed to Simaruba. In dysentery I have found an infusion of chamomile flowers a more useful remedy.” *Mat. Med. vol. ii. p. 75.*

## QUASSIA AMARA.

## BITTER QUASSIA.

*SYNONYMA.* Quassia. *Pharm. Lond. & Edinb.* Quassia pentaphylla pediculis alatis, floribus racemosis terminalibus coccineis fructu pentaspermo. *PATRIS in Gazette salutaire, 1777, n. 41. 42.* item in *ROZIER Observations sur la Physique. Tom. IX. 1777. p. 140. Suppl. Plant. p. 235.*

*Class* Decandria. *Ord.* Monogynia. *Lin. Gen. Plant. 529.*

*Eff. Gen. Ch. Cal.* 5-phyllus. *Petala* 5. *Nectarium* 5-phyllum. *Pericarpia* 5, distantia 1-sperma.

*Sp. Ch.* Q. floribus hermaphroditis, foliis impari-pinnatis, foliolis oppositis sessilibus, petiolo articulato alato, floribus racemosis. *Suppl. Plant.*

THIS tree rises several feet in height, and sends off many strong branches: the wood is white and light; the bark is thin, and of a grey colour: the leaves are placed alternately upon the branches, and consist of two pair of opposite pinnæ, with an odd one at the end:

all the leaflets are of an elliptical shape, entire, veined, smooth, pointed, sessile, on the upper pagina of a deep green colour, on the under paler: the common footstalk is articulated and winged, or edged, on each side with a leafy membrane, which gradually expands towards the base of the pinnæ: the flowers are all hermaphrodite, of a bright red colour, and terminate the branches in long spikes: the bractææ or floral leaves are lance-shaped or linear, coloured, and placed alternately upon the peduncles: the calyx is small, persistent, and five-toothed: the corolla consists of five lance-shaped equal petals, at the base of which is placed the nectary, or five roundish, coloured, scales: the filaments are ten, slender, somewhat longer than the corolla, and crowned with simple antheræ, placed transversely: the receptacle is fleshy and orbicular: the germen is ovate, divided into five parts, and supports a slender style, longer than the filaments, and terminated by a tapering stigma: the capsules are five, two-celled, and contain globular seeds. It is a native of South America, particularly of Surinam, and also of some of the West-India islands.

The botanical character of this species of *Quassia* was known long before that of the *Simaruba*, as it is noticed in its proper place in the *Sp. Plantarum*, upon the authority of Dahlberg, when it was thought peculiar to Surinam; afterwards, Linnæus, in his *Materia Medica*, referred it to the *Nux americana, foliis alatis bifidis* of *Commelin*.|| It appears, however, that the figure given in the *Amœnitates Academicæ*,<sup>a</sup> is not a faithful representation of this species; hence the younger Linnæus has observed, “*Figura floris in Dissertatione Parentis de Quassia vera est, sed ramulus cum foliis ad aliam pertinet;*”<sup>b</sup> and consequently those copied from it, and since published by Buchoz, and others, are with respect to the leaves erroneous;\* this will be evident, upon consulting the plate and description of the *Quassia* given by Patris, as well as the Icon here annexed, which was drawn from a specimen in the possession of that able naturalist Dr. J. E. Smith, President of the Linnæan Society.<sup>c</sup>

|| *Hort. i. p. 423. t. 94.*    <sup>a</sup> See *Vol. vi. p. 416.*    <sup>b</sup> *Suppl. Plant. p. 235.*

\* On this account, we have not referred to the figure of the *Quassia*, lately published by Dr. Lettsom in the *Mem. of the Med. Society*.

<sup>c</sup> The ample and valuable collection of specimens in Natural History made by Linnæus, and to which most of his cotemporary naturalists were contributors, are now in the possession of this Gentleman, who has obligingly offered us any assistance it may afford us in the prosecution of this work.

The root, bark, and wood<sup>d</sup> of this tree, are all comprehended in the catalogues of the *Materia Medica*; but as the roots are perfectly ligneous, they may be medically considered in the same light as the wood, which is now most generally employed, and seems to differ from the bark in being less intensely bitter; the latter is therefore thought to be a more powerful medicine. Quassia has no sensible odour; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance; it imparts its virtues more completely to watery than to spirituous menstrua, and its infusions are not blackened by the addition of martial vitriol. The watery extract is from a sixth to a ninth of the weight of the wood; the spirituous about a twenty-fourth. Quassia derived its name from a negro named Quassi, (by Fermin<sup>e</sup> written Coissi, and by Rolander Quass) who employed it with uncommon success, as a secret remedy in the malignant endemic fevers, which frequently prevailed at Surinam. In consequence of a valuable consideration, this secret was disclosed to Daniel Rolander, a Swede, who brought specimens of the Quassia-wood to Stockholm, in the year 1756; and since then the effects of this drug have been very generally tried in Europe, and numerous testimonies of its efficacy published by many respectable authors.<sup>f</sup> Various experiments with Quassia have likewise been made, with a view to ascertain its antiseptic powers, from which it appears to have considerable influence in retarding the tendency to putrefaction,<sup>g</sup> and this Professor Murray thinks cannot be attributed to its sensible qualities, as it possesses no astringency whatever, nor can it depend upon its bitterness, as gentian is much bitterer, yet less antiseptic. The medicinal virtues ascribed to Quassia are those of a tonic, stomachic, antiseptic, and febrifuge; it has been found very effectual in restoring the tone of the stomach, producing appetite for food, assisting digestion, expelling flatulency, and removing habitual cos-

<sup>d</sup> It may also be remarked, that the leaves, flowers, &c. likewise possess similar qualities. Toutes les parties du Cassia, écorce, bois, feuilles, fleurs, calice, enveloppes des graines, et les graines mêmes, sont d'une amertume énergique, et dont n'approche aucun médicament jusqu'à présent connu, &c. *Patris l. c. p. 144.*

<sup>e</sup> *Description de la Colonie de Surinam. Tom. i. p. 212.*

<sup>f</sup> Of these we may mention *Linnaeus, Dahlberg, Blom, Fermin, Tissot, Thorstensen, Severius, Ebeling, Patris*, and many others, for which see *Murray App. Med. vol. iii. p. 432. & seq.*

<sup>g</sup> Vide *Ebeling Diff. de Quassia, &c. p. 14. Severius, Comment. in quo medicatae Quassiae vires expenduntur. p. 77.*

tiveness,



tiveness, produced from debility of the intestines, and common to a sedentary life. Dr. Lettsom, whose extensive practice gave him an opportunity of trying the effects of Quassia in a great number of cases, says, “ In debility, succeeding febrile diseases, the peruvian bark is most generally more tonic and salutary than any other vegetable hitherto known; but in hysterical atony, to which the female sex is so prone, the Quassia affords more vigour and relief to the system than the other, especially when united with the *vitriolum album*, and still more with the aid of some absorbent.” In dyspepsia, arising from hard drinking, and also in diarrhoeas, the Doctor exhibited the Quassia with great success. But with respect to the tonic and febrifuge qualities of Quassia, he says, “ I by no means subscribe to the Linnæan opinion, where the author declares, *me quidem judice chinchinam longe superat*: it is very well known, that there are certain peculiarities of the air and idiosyncrasies of constitution, unfavourable to the exhibition of the peruvian bark, even in the most clear intermissions of fever, and writers have repeatedly noticed it; but this is comparatively very rare. About midsummer, 1785, I met with several instances of low remittent and nervous fevers, wherein the bark uniformly aggravated the symptoms, though given in intermissions the most favourable to its success; and wherein Quassia, or snake-root, was successfully substituted. In such cases, I mostly observed, that there was great congestion in the hepatic system, and the debility at the same time, discouraged copious evacuations.”—And in many fevers without evident remissions to warrant the use of the bark, whilst at the same time increasing debility began to threaten the life of the patient, the Doctor found that Quassia, or snake-root, singly or combined, upheld the vital powers, and promoted a critical intermission of fever,” by which an opportunity was offered for the bark to effect a cure.<sup>h</sup> It may be given in infusion, or in pills made from the watery extract, the former is generally preferred in the proportion of three or four drams of the wood to twelve ounces of water.

<sup>h</sup> See *Memoirs of the Med. Society*, vol. i. p. 150.

Dr. Cullen says, “ I believe Quassia to be an excellent bitter, and that it will do all that any pure and simple bitter can do; but our experience of it in this country does not lead us to think it will do more; and the extraordinary commendations given of it are to be ascribed to the partiality so often shewn to new medicines. *Mat. Med.* v. ii. p. 74.







## SAMBUCUS NIGRA. COMMON BLACK ELDER.

*SYNONYMA.* Sambucus. *Pharm. Lond. & Edinb.* Sambucus fructu in umbella nigro. *Baub. Pin. p. 456.* Sambucus vulgaris. *Park. Theat. p. 407. f. Baub. vol. i. p. 544. Raii Hist. p. 1609. Synop. p. 461. Gerard. Emac. p. 1422. Hudson Flor. Ang. p. 130. Flor. Dan. 545. Withering. Bot. Arrang. p. 320. Duhamel, t. 65. Sambucus arborea, floribus umbellatis. Hal. Stirp. Helv. n. 670.*

Varietates sunt,

β Sambucus fructu in umbella viridi. *C. Baub.*

γ Sambucus laciniato folio. *C. Baub.*

*Class* Pentandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 372.

*Eff. Gen. Ch.* *Cal.* 5-partitus. *Cor.* 5-fida. *Bacca* 3-sperma.

*Sp. Ch.* *S. cymis quinquepartitis, foliis pinnatis, caule arboreo.*

THE root is woody, from which issues a shrubby stem often to the height of twelve or sixteen feet: it is much branched towards the top, and covered with a rough whitish bark: the wood is hard, tough, and contains in the centre a large proportion of medullary matter, or pith: the leaves are pinnated, consisting of two or three pair of pinnæ or leaflets, with an odd one at the end; they are oval, veined, smooth, deeply serrated, and of a deep green colour: the flowers are small, white, and produced in large flat umbels or clusters: the calyx is permanent, placed above the germen, and divided into five segments: the corolla is monopetalous, wheel-shaped, somewhat convex, and divided into five obtuse segments: the filaments are tapering, spreading, equal in length to the corolla, and crowned with roundish antheræ: the germen is oval, and furnished with a prominent gland, which supplies the place of the styles, and supports three blunt stigmata: the fruit is a round succulent berry, of a blackish purple colour, and contains three seeds, which are flat on one side, and angular on the other. It is a native of Britain, in moist hedges and woods, and flowers in May and June.

This species is the *Ἀκτὴ* <sup>a</sup> of the Greek writers, and has been long very generally employed for medical purposes. The whole plant has an unpleasant narcotic smell, and some authors have reported its exhalations to be so noxious as to render it unsafe to sleep under its shade.<sup>b</sup> The parts of the *Sambucus*, which are proposed for medicinal use in the *Pharmacopœias*,<sup>c</sup> are the inner bark, the flowers, and the berries. The first has scarcely any smell, and very little taste: on first chewing, it impresses a degree of sweetishness, which is followed by a very slight, but durable, acrimony, in which its powers seem to reside, and which it imparts both to watery and spirituous menstrua. It is strongly cathartic, and on this account was much used by Sydenham <sup>d</sup> and Boerhaave,<sup>e</sup> who recommend it as an effectual hydragogue; the former directs three handfuls of it to be boiled in a quart of milk and water, till only a pint remains, of which one half is to be taken night and morning, and repeated for several days: it usually operates both upwards and downwards, and upon the evacuations it produces, its utility depends. Boerhaave gave its expressed juice in doses from a dram to half an ounce. In smaller doses it is said to be an useful aperient and deobstruent in various chronical disorders.

“ The flowers have an agreeable flavour, which they give over in distillation with water, and impart by infusion both to water and rectified spirit: on distilling a large quantity of them with water, a small portion of a butyraceous essential oil separates. Infusions made from the fresh flowers are gently laxative and aperient: when dry they are said to promote chiefly the cuticular excretion, and to be particularly serviceable in erysipelatous and eruptive disorders.” Externally they are used in fomentations, &c. and in the London *Pharmacopœia* directed in the form of an ointment. “ The berries, in taste, are somewhat sweetish, and not unpleasant; on expression, they yield a

<sup>a</sup> *Sambucus*, Ἀκτὴ Græcis, a *Sambuca* musico instrumento, quod alii *pestida*, alii *magadin* vocant, dicta putatur. Alii ab autore cui nomen *Sambyx* denominatam malunt. Nobis vox incertæ originis esse videtur. *Raii Hist.* p. 1609.

<sup>b</sup> The Berries are said to be poisonous to poultry. (*Barthol. Hist. anat. rarior. Cent. iv. p. 248.*) And the flowers to peacocks. *Linn. Flor. Succ. p. 79.* If turneps, cabbages, fruit-trees, or corn, (which are subject to blight from a variety of insects) are whipped with the green leaves and branches of Elder, the insects will not attack them. *Withering. l. c.* See *Phil. Trans. vol. lxii. p. 348.*

<sup>c</sup> The leaves are purgative like the bark, but more nauseous.

<sup>d</sup> *Oper. p. 496.*

<sup>e</sup> *Hist. Plant. P. I. p. 207.*







*Pyrus Cydonia*

Published by D<sup>r</sup> Woodville April 1 1791

fine purple juice, which proves an useful aperient and resolvent in recent colds and sundry chronical diseases, gently loosening the belly, and promoting urine and perspiration.”<sup>f</sup> The officinal preparation of these berries is the succus baccæ sambuci spissatus. (Pharm. Lond.)

<sup>f</sup> *Lewis M. M.* p. 576.

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PYRUS CYDONIA. COMMON QUINCE TREE.

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*SYNONYMA.* Cydonium malum. *Pharm. Lond. & Edinb.*  
*Malus Cotonea.* *Gerard. Emac.* p. 1452. *Raii Hist.* p. 1452.  
*J. Baub. Hist. vol. i.* p. 35. *Malus Cotonea vulgaris.* *Park. Theat.* p. 1504. *Mala cotonea majora.* *Baub. Pin.* p. 434.  
*Flor. Austr. v. iv. t.* 342. Duplex varietas in hortis colitur, scil.  
 1. *Cydonia fructu oblongo læviori.* *Tourn. Instit.* p. 632. *Mala Cotonea majora.* *C. Baub. l. c.* depicta ab ill Du Hamel, in *Traité des Arb. fruit. ad* p. 206. 2 *Cydonia fructu brevior et rotundior.* *Tourn. l. c.* *Mala cotonea minora.* *C. Baub. l. c.* depicta in Du Hamel *Traité des Arb. et Arbustes Tab.* 83. Prostat et alia 3 varietas: *Cydonia latifolia lusitanica.* *Tourn.* cujus fructus oblongus succosior et minus acerbus, sed rarioris proventus. Vide *Murray App. Med. vol. iii.* p. 196.

*Class* Icosandria. *Ord.* Pentagynia. *Lin. Gen. Plant.* 626.

*Eff. Gen. Ch.* *Cal.* 5-fidus. *Petala* 5. *Pomum inferum* 5-loculare, polyspermum.

*Sp. Ch.* F. fol. integerrimis, flor. solitariis.

THIS tree seldom rises very high, being usually crooked and distorted: it sends off several branches, and is covered with a brown bark: the leaves are simple, roundish or oval, entire, on the upper side of a dusky green colour, on the under, whitish, and stand upon short footstalks: the flowers are large, solitary, of a pale red or white colour, and placed close to the axillæ of the leaves: the calyx



calyx is composed of one leaf, and divided into five spreading oval notched segments: the corolla consists of five petals; these are large, convex, roundish, and notched at their extremities: the filaments are about twenty, tapering, shorter than the corolla, inserted into the calyx, and furnished with simple antheræ: the germen is orbicular: the styles are five, slender, nearly of the length of the filaments, and supplied with simple stigmata: the fruit is of the apple kind, and divided at the centre into five membranous cells, containing the seeds, which are oblong, angular, pointed at one end, obtuse at the other, on one side compressed, on the other flat, and covered with a brownish pellicle. It is a native of Austria,\* and flowers in May and June.

It appears from Pliny,<sup>a</sup> that the *malus Cydonia*, or *Μηλεα κυδωνια* of the Greeks, was originally brought from Cydon in Crete, hence the name Cydonia. At present, the Quince tree is known to grow wild on the banks of the Danube, though in a much less luxuriant state than we observe it in British gardens, where it was cultivated in the time of Gerard. The form of the fruit approaches to that of the pear or apple, according to the different varieties of this species of tree from which it is produced, and which we have already noticed under the synonyms: it has a pleasant odour, and a very austere taste: || its expressed juice, repeatedly taken in small quantities, is said to be cooling, restringent, and stomachic, useful in nausea, vomitings, nidorous eructations, and some kind of alvine fluxes.<sup>b</sup> Formerly this juice was ordered in the Lond. Pharm. to be made into a syrup; but the only preparation of the Quince which it now directs is a mucilage of the seeds, made by boiling a dram of the seeds in eight ounces of water, till it acquires a proper consistence. This has been recommended in apthous affections, and excoriations of the mouth and fauces. It may be a more pleasant mucilage, but it is certainly a less efficacious one, than that of the simple gums.

\* Vide *Aiton's Hort. Kew.*

<sup>a</sup> *Lib. xv. cap. 11.*

Heister *Diff. de Cydoniis*, p. 59.

|| But upon being boiled and preserved in syrup, this fruit is well known to give a pleasant flavour to apple-pies.

<sup>b</sup> *Lewis Mat. Med.* p. 267.







*Dianthus Caryophyllus*

Painted by Dr. Waddell April 1871.

## DIANTHUS CARYOPHYLLUS.||

## CLOVE PINK.

*SYNONYMA.* Caryophyllum rubrum. *Pharm. Lond. & Edinb.*

Caryophyllus hortensis simplex flore majore. *Baub. Pin. p. 208.*

Caryophyllus simplex major. *Gerard. Emac. p. 590. Vide Park.*

*Parad. p. 306. Raii Hist. p. 986. Synop. p. 336. Dianthus*

Caryophyllus. *Hudson. Flor. Ang. Withering. Bot. Arr. p. 441.*

*α* Caryophyllus hortensis simplex flore majore. *C. Baub.*

CLOVE PINK.

*β* Caryophyllus maximus ruber & variegatus. *C. Baub.*

COMMON CARNATION.\*

*Class* Decandria. *Ord.* Digynia. *Lin. Gen. Plant. 565.*

*Eff. Gen. Ch.* Cal. cylindricus, 1-phyllus: basi squamis 4. *Petalæ* 5, unguiculata. *Caps.* cylindrica, 1-locularis.

*Sp. Ch.* D. floribus solitariis, squamis calycinis subovatis brevissimis, corollis crenatis.

THE root is perennial, firm, divided, and beset with many fibres: the stems are slender, smooth, branched, upright, jointed, of a glaucous, or sea green, colour, and rise from one to two feet in height: the leaves upon the stem are short, linear, and placed in pairs at the joints: those of the young shoots are numerous, narrow, pointed, smooth, entire, and of the same colour as the stalk: the flowers stand singly at the extremities of the branches, and are of a deep crimson colour: the calyx is tubular, cylindrical, divided at the mouth into five segments, and surrounded at the base with four oval pointed squamæ: the corolla consists of five petals, which at the limb are roundish, patent, scolloped, fringed, and attached to the common receptacle by long narrow claws: the ten filaments

|| " Ut nomen traxisse ab odoris affinitate qualicunque dubium non est; ita nescio sane quæ et unde sit barbara illa vox tunica. *Baub. Pin. p. c.*

\* Vide Aiton's *Hort. Kew.*



are longer than the calyx, tapering, spreading towards the top, and furnished with compressed oblong antheræ: the germen is oval: the styles two, slender, longer than the filaments, and their stigmata curled outwards: the capsule is cylindrical, and contains many small roundish seeds.

This fragrant plant is known to grow wild in several parts of England on old walls and in the crevices of rocks;† but the flowers, which are pharmaceutically employed, are usually produced in gardens, where they become extremely luxuriant, and by the arts of culture those beautiful varieties raised which are so highly esteemed under the name of Carnations. The flowers of the Clove Pink, or as it is more commonly called, Clove July Flower, have a pleasant aromatic smell, somewhat allied to that of clove spice: their taste is bitterish and subastringent. “ Rectified spirit, digested on the flowers, receives a much paler tincture than watery liquors, but extracts the whole of their active matter. In distillation or evaporation, spirit elevates much less than water; the spirituous extract retaining a considerable share of the fine smell of the flowers as well as their taste: its colour is purplish like that of the watery extract.”<sup>a</sup>

Formerly these flowers were supposed to have considerable effect upon the nervous system, and were therefore recommended in headaches, faintings, palpitations of the heart, convulsions, tremors, &c. and S. Paulli says, that he found them of great use even in malignant fevers.<sup>b</sup> At present, however, they are valued merely for their sensible qualities, and the syrupus caryophylli rubri, which is the only officinal preparation of these flowers, is to be considered in this light: its pleasant flavour and fine colour rendering it an useful vehicle for other medicines.

† At Rochester, Deal, Sandown, and other castles, plentifully. See *Ray* and *Hudson*.

<sup>a</sup> Lewis's *Mat. Med.* p. 205.

<sup>b</sup> *Quad. Bot.* p. 242.





*Viola odorata*

Published by D<sup>r</sup> Woodville May. 1. 1791.



## VIOLA ODORATA.

## SWEET VIOLET.

*SYNONYMA.* Viola. *Pharm. Lond. & Edinb.* Viola martia purpurea, flore simplice odoro. *Baub. Pin. p.* 199. *J. Baub. Hist. ii. p.* 542. *Raii Hist. p.* 1049. *Synop. 364.* Viola nigra five purpurea. *Gerard. Emac. p.* 550. Viola simplex martia. *Park. Parad. p.* 282. Viola acaulis stolonifera, foliis cordatis. *Hall. Stirp. Helv. n.* 558. Viola odorata acaulis, foliis cordatis, stolonibus reptantibus, bractæis supra medium pedunculi. *Curtis Flor. Lond.*

Varietates sunt,

α Viola martia purpurea, flore simplice odoro. *C. Baub. l. c. p.* 199.

PURPLE FLOWERED SWEET VIOLET.

β Viola martia alba. *C. Baub. l. c. p.* 199.

WHITE FLOWERED SWEET VIOLET.

γ Viola martia multiplici flore. *C. Baub. l. c. p.* 199.

DOUBLE FLOWERED SWEET VIOLET.<sup>a</sup>

*Class* Syngenesia. *Ord.* Monogamia. *Lin. Gen. Plant.* 1007.

*Eff. Gen. Ch.* Cal. 5-phyllus. *Cor.* 5-petala, irregularis, postice cornuta. *Caps.* supera, 3-valvis, 1-locularis.

*Sp. Ch.* V. acaulis, fol. cordatis: stolonibus reptantibus.

THE root is perennial, knobbed, whitish, and furnished with long fibres: the leaves are heart-shaped, veined, crenated, or slightly scalloped at the edges, on the upper side smooth, and of a shining green colour, underneath paler, somewhat hairy, and stand upon long smooth footstalks: the stipulæ are membranous, lance-shaped, minutely serrated, and chiefly produced from the root: the peduncles are usually about four inches long, and somewhat above the middle furnished with two pointed bractææ, below which the peduncle is quadrangular, but above it is grooved on the back, bent downwards at the top, and supports a single flower: the calyx is composed of

<sup>a</sup> Vide Aiton's Hort. Kew.

five leaflets, persistent, oval, obtuse, protuberant at the base, and tinged with a dark purplish colour: the corolla consists of five irregular petals, of a bluish purple colour; the two lateral petals are bearded towards the base, and the claw of the undermost formed into a horn-shaped nectarium: the five filaments are very short: the antheræ are bilocular, slightly joined together, yellowish, and terminated by an oval membrane of an orange colour: from behind two of the antheræ there arises a flat greenish appendage, which is inserted in the nectarium: the germen is orbicular: the style twisted, and supplied with a hooked stigma: the capsule is roundish, compressed, separated by three valves, and contains several roundish light-coloured seeds. It is common near warm hedges, and on ditch banks, and flowers in March and April.

This species of violet may be distinguished from the *Viola hirta*, to which it bears a great resemblance, by the latter having its leaves and footstalks beset with small hairs; by not sending off creeping shoots which strike root; by its flowers being inodorous, and of a fainter blue colour; and by the bractæ being placed somewhat below the middle of the scapus or peduncle.<sup>b</sup>

The *Viola odorata* is evidently the *Ιον μέλαν* of Theophrastus, and the *Ιον πορφύρεον* of Dioscorides;<sup>c</sup> it was also well known to the Arabian physicians, as Mesue commends its use highly in various inflammatory diseases. *Viola* is likewise frequently mentioned by the Latin poets, who allude to its effects as a vulnerary.<sup>d</sup> The recent flowers only are now received in the catalogues of the *Materia Medica*; they have an agreeable sweet smell, and a mucilaginous bitterish taste; to water they readily give out both their virtue and their fine flavour, but scarcely impart any tincture to rectified spirit, though they impregnate the spirit with their flavour.<sup>e</sup> These flowers taken in the quantity of a dram or two are said to be gently purgative or laxative, and according to Bergius, and some others, they possess an anodyne and pectoral quality. The officinal preparation of these flowers is a

<sup>b</sup> This last circumstance was first noticed by Mr. Curtis, who introduced it into the specific character.

<sup>c</sup> “*Viola, quasi vitula, Græcis Ιον ab Ιο Puella in vaccam a Jove conversam, dicta censetur. Matthiol. Viola per diminutionem à Græco dicta est, spiritu leni in literam converso, ut in aliis multis.*” *Raii Hist. p. 1049.*

Vide *Lewis's Mat. Med. p. 664.* <sup>d</sup> Vide *Ovid Metamorph. lib. x. v. 190.*







*Cupampelos Pereira*

Published by Dr. Woodvill. May 1. 1791.

fyrup,<sup>f</sup> which to young children answers the purpose of a purgative. This fyrup is also found useful in many chemical inquiries to detect an acid or an alkali, the former changing the blue colour to a red, the latter to a green. The seeds of Violets are reported to be strongly diuretic, and useful in gravelly complaints.<sup>g</sup> The root powdered, in the dose of a dram, proves both emetic and cathartic.<sup>h</sup>

<sup>f</sup> This fyrup is usually prepared from the petals of the cultivated Violet; and Dr. Withering tells us, that at Stratford upon Avon large quantities of the Violet are cultivated for this purpose. l. c. <sup>g</sup> See the authorities cited by Murray, *App. Med. v. i. p. 519*.

<sup>h</sup> Tournefort *Hist. des Plant. de Paris, t. i. p. 291*. Henninger *Diff. de Viola purpur*.

## CISSAMPELOS PAREIRA. PAREIRA BRAVA CISSAMPELOS.

*SYNONYMA.* Pareira brava. *Pharm. Lond.* Clematis baccifera glabra et villosa, rotundo & umbelicato folio. *Plumier, Plantes de l'Amer. 78. t. 93.* Sloane's *Jamaica, vol. i. p. 200. Cat. 85.* Caapeba folio orbiculari umbelicato & tomentoso. *Plum. Gen. 33.* Cissampelos scandens, foliis peltatis orbiculato-cordatis villosis; floribus masculinis racemosis, femininis spicatis, spicis foliolatis. *Browne's Jamaica, p. 357.*

*Class* Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant. 1138.*

*Eff. Gen. Ch.* *Masc.* Cal. 4-phyllus. *Cor.* o. *Nectarium* rotatum. *Stam.* 4: filamentis connatis.

*FEM.* Cal. monophyllus, ligulato-subrotundus. *Cor.* o. *Styli* 3. *Bacca* 1-sperma.

*Sp. Ch.* C. foliis peltatis cordatis emarginatis.

THE root is perennial, long, thick, woody, composed of distinct fibres, of a dull yellowish hue, and covered with furrowed bark of a brown colour: the stalks are numerous, shrubby, slender, very long, covered with a whitish bark, and climb round the neighbouring trees



for support:<sup>a</sup> the leaves are roundish, indented at the top, about an inch and a half long, two inches broad, entire, covered with soft downy hairs,<sup>b</sup> and hang upon round simple downy footstalks, which are inserted into the back of the leaf: the flowers are extremely minute, of a greenish colour, placed in clusters upon long axillary spikes, and are male and female in different plants: the calyx of the male flower is divided into four small oval segments: it has no corolla, but the nectary is wheel-shaped and membranous: the filaments are four, very small, united, and furnished with broad flat antheræ: of the female flower the calyx is strap-shaped or ligulated: the germen is roundish, and supports three short styles, furnished with pointed stigmata: the fruit is a small one-celled berry, containing a roundish rough compressed seed. It is a native of S. America and the West Indies.

The plant, which we have here represented, was drawn from a dried specimen in the possession of Mr. Aiton at Kew, to which a separate display of the parts of fructification was intended to have been introduced, but from their extreme minuteness and dryness it was found to be impracticable: the general appearance of the plant is however so characteristic as in some measure to compensate for this deficiency.

The medicinal use of the roots of this plant was first learned from the Brazilians, who infused them in water, which they drank freely in all obstructions in the urinary passages;<sup>c</sup> and towards the end of the last century these roots were brought into Europe by the Portuguese, who recommended them to physicians as the most effectual remedy hitherto discovered in all calculous and gravelly complaints; and various accounts of their efficacy were soon after published.<sup>d</sup> This root “has no remarkable smell; but to the

<sup>a</sup> In Jamaica “this plant grows in great plenty, commonly amongst the ebony trees, climbing about them.” *Long’s Fam. vol. iii. p. 760.*

<sup>b</sup> From this villous covering of the leaf, it is usually called *Velvet leaf*.

<sup>c</sup> According to Browne, it is still used with this intention by the negroes at Jamaica. Vide l. c.

<sup>d</sup> “Parisios per Regis Galliæ legatum, *Amelot*, a. 1688. pervenit (*Hist. de l’Acad. des Scien. de Paris*, 1710, p. 56.) tumque varii medici Galli ejus usum fecere, interque hos *Helvetius*, qui in *Traité des maladies les plus fréquentes et des remèdes spécifiques*, ejus mentionem aliquoties honorificam injicit.” In Germania nondum initio seculi famam excitaverat, sed multum ibidem ad ejusdem existimationem contulit *Lochnerus* (*Schediasma de Pareira brava Norimb.* 1719. *Ed. 2. in 4.*) casibus potius distincte prolatis, quam luxuriantis cruditionis ornamentis, quibus obvelantur.” Vide *Murray Ap. Med. v. i. 345.*  
taste



taste it manifests a notable sweetness of the liquorice kind, together with a considerable bitterness, and a slight roughness covered by the sweet matter. It gives out great part both of the bitter and sweet substance to watery and spirituous menstrua: in evaporating the watery decoction a considerable quantity of resinous matter separates, which does not mingle with the remaining extract, nor dissolve in water, but is readily taken up by spirit; whence spirit appears to be the most perfect dissolvent of its active parts. Both the spirituous tincture and extract are in taste stronger than the watery.”<sup>e</sup>

The facts adduced on the utility of radix pareiræ bravæ in nephritic and calculous cases, are principally those by Helvetius, Geoffroy, and Lochner:<sup>f</sup> the first seems to think that it acts as a lithontriptic, but Geoffroy attributes its virtues to its power of dissolving the indurated mucus to which the fabulous matter adheres. It has also been recommended in ischuria, ulcers of the bladder, fluor albus, rheumatism, jaundice, asthma, and some other chronic diseases. The accounts given of the successful employment of this root by the French writers, induced physicians to try its effects in this country; but we find no remarkable instances of its efficacy recorded by British practitioners; and as a proof of its being fallen into disrepute, the Edinburgh College has expunged it from the *Materia Medica*.<sup>g</sup> The dose of the powdered root is from one scruple to two. Geoffroy directs two or three drams of the root to be bruised and boiled in a pint and a half of water till only a pint remains, which is to be divided into three doses.

<sup>e</sup> *Lewis Mat. Med.* p. 480.

<sup>f</sup> Vide l. c. in note ( <sup>d</sup> )

<sup>g</sup> And Bergius says, “ Certe vidi ego calculosos, arthriticos & rheumaticos plures, qui satis diu usum ejus absque successu continuarunt.” *Mat. Med.* p. 815.

## AMYGDALUS COMMUNIS.

AMYGDALUS COMMUNIS. THE ALMOND TREE.

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*SYNONYMA.* Amygdala (nuclei). *Pharm. Lond. & Edinb.*  
 Amygdalus amara & dulcis. *J. Baub. Hist. vol. i. p. 174. Raii*  
*Hist. p. 1519. Gerard. Emac. p. 1445. Park. Theat. p. 1515.*  
 Amygdalus foliis glabris, ovatis, utrinque acuminatis, ferratis,  
 petiolo imisque dentibus glandulosis. *Hal. Stirp. Helv. n. 1080.*

Varietates sunt,

α Amygdalus fativa. *Baub. Pin. p. 441. Amygdalus dulcis,*  
 putamine molliore. *Tournef. Inst. p. 627. Amandier à*  
 coque tendre, vel Amandier des Dames. *Du Hamel. Arbres*  
*fruit. T. i. p. 120. tab. 5.*

SWEET ALMOND TREE.

β Amygdalus amara. *Tournef. Inst. p. 627. Amandier à fruit*  
 amer. *Du Hamel, l. c. p. 123.*

BITTER ALMOND TREE.

*Class* Icofandria. *Ord.* Monogynia. *Lin. Gen. Plant. 619.*

*Eff. Gen. Ch. Cal.* 5-fidus, inferus. *Pet. 5. Drupa* nuce poris perforata.

*Sp. Ch. A.* foliis ferraturis infimis glandulosis, floribus sessilibus geminis.

THIS tree divides into many branches, covered with a dark grey bark, and usually rises from twelve to sixteen feet in height: the leaves are elliptical, narrow, pointed at each end, minutely ferrated, veined, of a bright green colour, beset with small glands towards the base, and stand upon short footstalks: the flowers are large, of a pale red colour, without peduncles, commonly placed in numerous pairs upon the branches, and appear before the leaves: the calyx is tubular, and divided at the brim into five blunt segments of a reddish colour: the corolla consists of five oval convex petals, with narrow claws: the filaments are about thirty, spreading, tapering, of unequal length, and of a reddish colour, inserted into the calyx, and furnished with simple antheræ: the germen is roundish and downy: the style is short, simple, and crowned with a round stigma: the fruit is of the  
 peach



*Amygdalus communis*

Published by Dr. Woodville May 1. 1791.





peach kind, the outer substance of which is hard, tough, hairy, and marked with a longitudinal furrow where it opens; under this is a thick rough shell, which contains the kernel or almond. This tree is a native of Barbary,<sup>a</sup> and flowers in March and April.

The Almond-tree seems to have been known in the remotest times of antiquity, being frequently mentioned by Theophrastus and Hippocrates: it is probable however that this tree was not very common in Italy, in the time of Cato, as he calls the fruit by the name of Greek nuts.<sup>b</sup> It was cultivated in England by Lobel previous to the year 1570,<sup>c</sup> and though it does not perfect its fruit in this country, yet it is here very generally propagated for the beautiful appearance of its flowers, which are the more conspicuous by showing themselves early in spring before the leaves are expanded.

The fruit or seeds of most vegetables on being planted produce varieties, differing more or less from the parent plant and from each other, and of the Almond-tree this difference is principally confined to the fruit, which is larger or smaller, the shell thicker or thinner, and the kernel bitter or sweet; hence the distinction into bitter Almonds and sweet Almonds, though the same species of tree affords both. Sweet-Almonds are more used as food than medicine, but they are said to be difficult of digestion, unless extremely well comminuted;<sup>d</sup> their medicinal qualities depend upon the oil which they contain in the farinaceous matter, and which they afford on expression nearly in the proportion of half their weight. The oil thus obtained is more agreeable to the palate than most of the other expressed oils, and is therefore preferred for internal use, being generally employed with a view to obtund acrid juices, and to soften and relax the solids; in tickling coughs, hoarseness, costiveness, nephritic pains, &c. externally in tension and rigidity of particular parts. The milky solutions of Almonds in watery liquors, usually called emulsions, possess, in a certain degree, the emollient qualities of the oil, and have this advantage over the pure oil, that they may be given in acute or inflammatory disorders, without danger of the ill

<sup>a</sup> Particularly in the hedges about Tripoli. See *Bauh. l. c.*

<sup>b</sup> See Pliny, *Lib. 15. cap. 22.* <sup>c</sup> Vide *Hort. Kew.*

<sup>d</sup> The *Nuces oleosæ* are not always easily digested: "but it appears that this inconvenience may be in a great measure obviated by a very diligent triture, uniting very intimately the farinaceous and the oily part." See *Cullen's Mat. Med. vol. i. p. 298.*

effects which the oil might sometimes produce, by turning rancid.\* The officinal preparations of Almonds are the expressed oil and the emulsion; to the latter the London College directs the addition of gum arabic, which renders it a still more useful demulcent in catarrhal affections, stranguries, &c.

Bitter Almonds yield a large quantity of oil, perfectly similar to that obtained from sweet Almonds; but the matter remaining after the expression of the oil, is more powerfully bitter than the Almond in its entire state. "Great part of the bitter matter dissolves by the assistance of heat both in water and in rectified spirit: and a part arises also with both menstrua in distillation."<sup>e</sup> Bitter Almonds have been long known to be poisonous to various brute animals,<sup>f</sup> and some authors have alledged that they are also deleterious to the human species, but the facts recorded upon this point appear to want further proof.<sup>g</sup> However, as the noxious quality seems to reside in that matter which gives it the bitterness and flavour, it is very probable that when this is separated by distillation, and taken in a sufficiently concentrated state, it may prove a poison to man,<sup>h</sup> as is the case with the common laurel, to which it appears extremely analagous. These Almonds are highly commended for the cure of hydrophobia by Thebesius, who experienced their good effects in twelve cases, in which a few (no particular quantity is mentioned) were eaten every morning.<sup>i</sup> And Bergius tells us, that bitter Almonds, in the form of emulsion, cured obstinate intermittents, after the bark had failed.<sup>k</sup>

\* Several substances of themselves, not miscible with water, may, by trituration with Almonds, be mixed with it in this form, and thus fitted for medical use, as camphor, and various resinous and unctuous substances. <sup>e</sup> *Lewis Mat. Med.* p. 53.

<sup>f</sup> Particularly wolves, foxes, dogs, cats, and various kinds of birds. For which see Wepfer de Cicut. aquat. And many other instances are related in the *Ep. Nat. Cur.* See also *Daries Epist. de Amygdalis et oleo amararum ætherco.* And Lorry de Venenis, p. 17. From the sudden effects which this poison produces, and the convulsions and spasms which follow its exhibition, there can be no doubt of its acting directly upon the nervous energy.

<sup>g</sup> Formerly they were eaten to prevent the intoxicating effects of wine, as is noticed by Dioscorides, "et Plutarchus medicum filii Imperatoris Tiberii producit, qui hocce præsidio munitus inter quotidianas comestiones in bibendo reliquos omnes antecellere valuit." *Murr. Ap. Med.* vol. iii. p. 260. But from twelve of these Almonds Lorry experienced a sense of inebriation. *De Venenis*, p. 17.

<sup>h</sup> One drop of this essential oil killed a small bird in two minutes. See *Daries*, l. c.

<sup>i</sup> Vide *Nov. Atl. Nat. Cur.* tom. i. p. 181. <sup>k</sup> *Mat. Med.* p. 413.

PRUNUS SPINOSA.







*Prunus spinosa*

Engraved by L. Woodcutt. Mar. 1. 791

## PRUNUS SPINOSA.

## SLOE TREE.

*SYNONYMA.* Prunum fylvestre. *Pharm. Lond.* Prunus fylvestris. *Gerard. Emac.* p. 1497. *Park. Theat.* p. 1033. *Baub. Pin.* p. 444. *J. Baub. Hist.* vol. i. p. 198. *Raii Hist.* p. 1527. *Synop.* p. 462. Prunus spinosa, foliis glabris ferratis ovato-lanceolatis, floribus breviter petiolatis. *Hall. Stirp. Helv.* n. 1080. *Hudson. Flor. Ang.* p. 212. *Withering. Bot. Arrang.* p. 509.

*Class* Icosandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 620.

*Eff. Gen. Ch.* Cal. 5-fidus, inferus. *Petala* 5. *Drupæ* nux futuris prominulis.

*Gen. Ch.* P. pedunculis solitariis, foliis lanceolatis glabris, ramis spinosis.

THE root is woody, divided, and spreading: the stem is shrubby, crooked, rises to the height of six or eight feet, covered with a purplish black coloured bark, and sends off many irregular spinous branches: the leaves are oval, obtusely lance-shaped, smooth, minutely ferrated, of a deep green colour, and stand upon short footstalks: † the stipulæ are linear, notched, and discoloured at their points: the flowers are large, white, and stand separately upon short peduncles: the calyx is small, and divided at the brim into five oval segments: the corolla is composed of five oblong concave petals, attached to the calyx by short claws: the filaments are in number from twenty to thirty, spreading, tapering, white, inserted in the calyx, and furnished with orange coloured antheræ: the germen is roundish, the style simple and slender, and the stigma orbicular: the fruit is of the drupous or cherry kind, though much smaller, of a black colour, but covered with a bright blue exudation, and contains a nut with an oblong kernel. It is common in hedges, and the flowers appear in March and April, before the leaves are visible.

† The serratures of the leaves have been observed by Linnæus to be terminated by an excretory duct.



The fruit of the Sloe-bush, or, as it is frequently called, Black-thorn, is so harshly sharp and austere as not to be eatable till thoroughly mellowed by frosts: its juice is extremely viscid, so that the fruit requires the addition of a little water, in order to admit of expression. The juice obtained from the unripe fruit, and inspissated to dryness by a gentle heat, is the German acacia, and has been usually sold in the shops for the Egyptian acacia, from which it differs in being harder, heavier, darker coloured, of a sharper taste, and more especially in giving out its astringency to rectified spirit.<sup>a</sup>

The *Pruna sylvestria* have been employed for their styptic powers since the time of Dioscorides;<sup>b</sup> and as their astringency is united to the refrigerant qualities of the fruit, they may sometimes supersede those medicines of this class which are of a resinous or heating quality. They have been recommended in diarrhæas, hæmorrhagic affections, and as gargles, in tumefactions of the tonsils and uvulæ. Dr. Cullen considers the Sloe as the most powerful of the *fructus acerbi*, and adds, that he has often found it an agreeable and useful astringent; but he thinks the conserve of this fruit, as directed by the College, contains a larger proportion of sugar than is necessary.<sup>c</sup>

The flowers, with their calyces, are moderately purgative, and for this purpose an ounce infused in a sufficient quantity of water, or rather whey, was experienced to be a pleasant and useful laxative.<sup>d</sup> The powdered bark, in doses of a dram, is said to cure agues.

<sup>a</sup> Lewis *Mat. Med.* p. 522.

<sup>b</sup> Diosc. *Mat. Med. Lib. i. cap.* 173.

<sup>c</sup> Vide *Mat. Med. vol. ii. p.* 41. See J. Bauh. *Hist. tom. i. P. i. p.* 196. & Fred. Hoffman. *Diff. de præstantia remed. domest.* §. 26:

Dr. Withering says, "The tender leaves dried are sometimes used as a substitute for tea, and is I believe the best substitute that has yet been tried. The fruit bruised, and put into wine, gives it a beautiful red colour, and a pleasant subacid roughness. Letters written upon linen or woollen with the juice of this fruit, will not wash out." *Bet. Arr.* p. 509.

## PRUNUS DOMESTICA. COMMON PRUNE, Or PLUM TREE.

*SYNONYMA.* Prunum gallicum. *Pharm. Lond.* Prunus domestica.

*Gerard. Emac. p.* 1497. Prunus vulgaris. *Park. Theat. p.* 1512.

In





*Prunus domestica*

Published by D. B. Woodville May 1. 1791.



*Raii Hist. p.* 1526. *Prunus foliis ferratis, hirsutis, ovato-lanceolatis, floribus longe petiolatis. Hal. Stirp. Helv. n.* 1079. Ut Linnæo videtur *Prunus fructu parvo dulci atro-cæruleo. Tournef. Inst. p.* 622.

*Class* Icofandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 620.

*Eff. Gen. Ch. Cal.* 5-fidus, inferus. *Petala* 5. *Drupæ* nux futuris prominulis.

*Sp. Ch.* *P.* pedunculis subfolitariis, fol. lanceolato-ovatis convolutis, ramis muticis. *Gemmæ floriferæ aphyllæ.* Mur.

THIS species of *Prunus* grows much higher than the former ; it is without spines, and covered with smooth bark of a dark brown colour : the leaves are oval, slightly indented at the edges, pointed, veined, of a pale green colour, and stand upon very short footstalks : the stipulæ are oval, pointed, membranous, and placed in pairs at the base of the peduncles : the flowers are large, and surround the branches upon separate peduncles : the calyx is divided into five narrow concave segments, and beset on the inside with a number of glandular hairs :<sup>a</sup> the corolla consists of five roundish white petals : the filaments are more than twenty, tapering, inserted in the calyx, and furnished with reddish antheræ : the germen is round, and supports a simple style, which is shorter than the filaments, and crowned with a globular stigma : the fruit is oblong, or egg-shaped, consisting of a sweet fleshy pulp, covered with a dark violet coloured pellicle, and including in the centre an almond-shaped nut, or stone. It is a native of Britain, and flowers in April and May.

Among the many varieties of plums<sup>b</sup> we find considerable difficulty in referring with sufficient accuracy to that called by the London College *Prunum gallicum* ; it is therefore probable that some

<sup>a</sup> See Withering, l. c.

<sup>b</sup> Du Hamel (*Arbres fruit. T. 2. p.* 65. *sq.*) describes forty-eight varieties : and Mayer (*Pomona Francon. T. 1. p.* 110.) makes them still more numerous.

The original parent of these varieties is not yet satisfactorily ascertained.—J. Bauhin refers it to the *Pruna cerea minora præcocia*.

of the synonyma introduced above, are not in this respect so correctly applicable as they ought to be.<sup>c</sup> The Syrian Plums were much esteemed by the ancients, particularly a species which grew in the neighbourhood of Damascus,<sup>d</sup> and hence a variety of this fruit is still known by the name of *Pruna damascena*. According to Pliny,<sup>e</sup> the tree was brought from Syria into Greece, and from thence into Italy, where its fruit is repeatedly noticed by the Latin poet.<sup>f</sup>

All our garden plums are eaten at table, and when sufficiently ripe, and taken in a moderate quantity, prove a pleasant and wholesome food. But in an immature state, they are more liable to produce colicky pains, diarrhæa, or cholera, than any other fruit of this class; some attention to this circumstance is therefore always necessary. Considered medicinally, they are emollient, cooling, and laxative, especially the French prunes, which are imported here in their dried state from Marseilles; and though the laxative power of these is diminished by drying, yet it is observed by Dr. Cullen, that as they contain a great deal of the acid which they originally had, they have more effect in this way than the other dried fruits.<sup>g</sup> They are found to be peculiarly useful in costive habits, and are frequently ordered in decoction with fenna or other purgatives. It is the pulp of this fruit which is directed in the *Electuarium e Senna*, or *Lenitive electuary*.

<sup>c</sup> On this subject Professor Murray says, “*Hicce Pharmacopœia Londinensi duce intelligo vulgaria ista oblonga, profunde violacea; ubivis in hortis reperiunda, cui varietati non audeo in brevitate descriptionum adscribere nomen Bauhinianum vel Tournefortianum, nisi sit Pruna oblonga cœrulea C. B. vel Pr. fructu oblongo cœruleo Tournef.*” *App. Med. vol. iii. p. 230.*

<sup>d</sup> See Dioscorides, (*Lib. i. cap. i. 174*) by whom the tree is called Κοκκυμηλα, and the fruit Κοκκυμηλα.

<sup>e</sup> *Hist. Nat. L. xv. cap. 13.*

<sup>f</sup> It is also thus mentioned by Ovid:

Prunaque, non solum nigro liventia succo,  
Verum etiam generosa, novasque imitantia ceras.

*MET. Lib. xiii. v. 818.*

<sup>g</sup> *Mat. Med. vol. i. p. 254.*

ASARUM EUROPÆUM.







*Asarum europæum*

Published by Dr. Woodville June 1 1791

## ASARUM EUROPÆUM.

## COMMON ASARABACCA.

*SYNONYMA.* Afarum. *Pharm. Lond. & Edinb. Baub. Fin.*  
*p.* 197. *Gerard. Emac. p.* 836. *J. Baub. Hist. vol. iii. p.* 548.  
*Ray Hist. p.* 207. *Synop. p.* 158. Afarum vulgare. *Park. Theat.*  
*p.* 266. Afarum foliis reniformibus subhirsutis. *Hal. Stirp. Helv.*  
*n.* 1547. Afarum Europæum. *Withering. Bot. Arrang. p.* 488.  
*Flor. Dan.* 633.

*Class* Dodecandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 589.

*Eff. Gen. Ch.* *Cal.* 3-f. 4-fidus, germini infidens. *Cor.* o. *Caps.*  
 coriacea, coronata.

*Sp. Ch.* A. foliis reniformibus obtusis binis.

THE root is perennial, strong, divided and fibrous: it has no stalk, so that the leaves rise immediately from the root; they grow in pairs, are kidney-shaped, large, of a deep shining green colour, and stand upon long footstalks: the flowers are large, bell-shaped, of a dirty purple colour, and placed singly upon short peduncles at the base of the footstalks: the calyx supplies the place of a corolla, and is large, bell-shaped, divided at the mouth into three or four pointed segments, which are of a brownish purple colour, but towards the base it is greenish: the filaments are twelve, about half the length of the calyx, and furnished with oblong antheræ, which are attached to the sides of the filaments: from the germen arises a simple style, crowned with a stigma, divided into six radiated reflected parts: the capsule is of a leathery texture, and divided into six cells, which contain several small oblong seeds. It is a native of England,<sup>a</sup> and flowers in May. -

It appears from Pliny,<sup>b</sup> that by the Ancients the name of this plant was frequently confounded with that of nardus and baccharis; and the English name Asarabacca has been derived from the words asarum and

<sup>a</sup> It is extremely scarce. Ray observes it is found in some woods in Lancashire. l. c.

<sup>b</sup> *Hist. Nat. L. xii. c.* 13. *et L. xxi. cap.* 6.

Afaron, ab *α priv.* & *σάπωνο*, quoniam in coronis non addatur.

baccharis:



baccharis: it is evident however that the plants, now known by these names, differ very considerably both in their appearance and effects.

“ The leaves and roots of *Asarum* have a moderately strong and not very unpleasant smell, somewhat resembling that of valerian or nard,† and a nauseous bitterish acrid taste:”<sup>c</sup> they seem to agree also in their medicinal effects, both proving strongly emetic and cathartic: the root has been observed to excite vomiting so constantly, that it is proposed by Linnæus as a substitute for *ipecacuanha*;<sup>d</sup> and Dr. Cullen says, “ the root dried only so much as to be powdered proves, in a moderate dose, a gentle emetic. It will commonly answer in doses of a scruple, sometimes in a less quantity,” “ and as we judge may be suited to many of the purposes of the *ipecacuanha*.”<sup>e</sup> In small doses it is said to promote perspiration, urine, and the uterine flux.<sup>f</sup> Spirituous tinctures and watery infusions of the plant possess both its emetic and cathartic virtues, but it is said that by coction in water the emetic power is first destroyed, and afterwards the purgative.<sup>g</sup> At present *Asarum* is seldom given internally, as the evacuations expected from its use may be procured with more certainty and safety<sup>h</sup> by various other medicines, that it is now chiefly employed as an errhine or sternutatory, and is found to be the most useful and convenient in the *Mat. Med.* For this purpose the leaves, as being less acrid than the roots, are preferred by the College, and in moderate doses, not exceeding a few grains, snuffed up the nose several successive evenings, produce a pretty large watery discharge, which sometimes continues for several days together, by which headach, toothach, ophthalmia, and some paralytic and soporific complaints, have been effectually relieved. It is the basis of the *pulv. sternutatorius*, or *pulvis asari compositus*.

† *Nardus Celtica* L.

<sup>c</sup> *Lewis M. M.* p. 122.

<sup>d</sup> *Am. Acad. T.* 7. p. 307. where it is also observed, that when exhibited in a state of *very fine powder*, it uniform'y acts as an emetic, but when *coarsely powdered* it always passes the stomach and becomes cathartic.

<sup>e</sup> *Mat. Med.* vol. ii. p. 473.

<sup>f</sup> “ *Diureticum & emmenagogum insigne: unde Meretriculæ plus satis frequentant decoctum ejus, cum sentiunt se gravidas. Quò tenuius est tritum eò magis urinas movere, minus autem alvum ducere, creditur.*” *Ray Hist.* p. 208. <sup>g</sup> *Raii l. c.*

<sup>h</sup> Ante aliquot annos civis hujus loci, vir quadratus, difficulter mobilis, sumit, suasu aniculæ, pulverem asari foliorum & radiceis ad integrum cochlear. Inde verò hypercatharsin patiebatur lethalem,” &c. *Wedelius Anænit. M. M.* p. 240. & *De Med. fac.*

ROSMARINUS OFFICINALIS.







*Rosmarinus officinalis*

Enlighted by Dr. Woodville Jun. 1791

## ROSMARINUS OFFICINALIS. COMMON ROSEMARY.

*SYNONYMA.* Rosmarinus. *Pharm. Lond. & Edinb.* Rosmarinum coronarium. *Gerard. Emac. p. 1292.* Rosmarinus hortensis angustiore folio. *Baub. Pin. p. 217.* Rosmarinus coronarius fructicosus. *J. Baub. Hist. v. ii. p. 25.* *Raii Hist. p. 515.* Libanotis coronaria sive rosmarinum vulgare. *Park. Theat. p. 71.*

*Class* Diandria. *Ord.* Monogynia. *Lin. Gen. Plant. 38.*

*Eff. Gen. Ch.* Cor. inæqualis: labio superiore bipartito. Filamenta longa, curva, simplicia cum dente.

THE root is strong, woody, and fibrous: the stalk is shrubby, covered with a rough grey bark, divided into many branches, and rises frequently to the height of six or eight feet: the leaves are sessile, or without footstalks, numerous, long, narrow, entire, obtusely pointed, on the upper side of a dark green, on the under of a greyish or silvery colour, and placed in whorls upon the branches: the flowers are large, of a pale blue colour, and arise from the axillæ of the leaves: the calyx is divided into two lips, of these the uppermost is entire, but the undermost is cloven into two pointed segments: the corolla is monopetalous, consisting of a cylindrical tube, longer than the calyx, and divided at the brim into two lips; the upper lip is erect and bifid, the under lip is separated into three segments; of these the middle segment is larger than both the others: the two filaments are long, curved, tapering, towards the base furnished with a small tooth, and supplied with simple antheræ: the germen is separated into four parts, which support a slender style, terminated by a cleft pointed stigma: the seeds are four, of an oblong shape, and lodged in the bottom of the calyx. Rosemary<sup>a</sup> is a native of the South of Europe and the Levant. It is commonly cultivated in our gardens, where it usually flowers in April and May.

<sup>a</sup> Ros dici putatur quia roscidæ sit naturæ, vel quia roris instar aspergatur, vel quia ejus usus in aspergillis, quod nobis verisimilius videtur: marinus autem vel quia in marinis locis feliciter proveniat, vel quia saporis marini, hoc est, amari. Voss. Etymolog. Vide Ray, l. c.



The ancients were well acquainted with this plant, as it is mentioned by Dioscorides, Galen, and Pliny.<sup>b</sup> It grows wild in some of the southern parts of France, but more abundantly in Spain and Italy. Its cultivation in this country, like many other plants which we have had occasion to mention, is probably of ancient date, but now cannot be traced beyond the time of Gerard.

Rosemary has a fragrant aromatic smell, and a bitterish pungent taste. The leaves and tops of this plant are the strongest in their sensible qualities: the flowers, which are also directed for use by the College, are not to be separated from their cups or calyces, as the active matter principally, if not wholly, resides in the latter.<sup>c</sup> “Rosemary gives out its virtues completely to rectified spirit, but only partially to water. The leaves and tops, distilled with water, yield a thin light pale-coloured essential oil of great fragrancy, though not quite so agreeable as the Rosemary itself: from one hundred pounds of the herb in flower were obtained eight ounces of oil: the decoction thus divested of the aromatic part of the plant yields, on being inspissated, an unpleasant bitterish extract. Rectified spirit likewise, distilled from Rosemary leaves, becomes considerably impregnated with their fragrance, leaving however in the extract the greatest share both of their flavour and pungency. The active matter of the flowers is somewhat more volatile than that of the leaves, the greatest part of it arising with spirit.”<sup>d</sup>

Rosemary is reckoned one of the most powerful of those plants, which stimulate and corroborate the nervous system; it has therefore been recommended in various affections, supposed to proceed from debilities, or defective excitement of the brain and nerves; as in certain headaches, deafnesses, giddinesses, palsies, &c. and in some hysterical and dyspeptic symptoms. Dr. Cullen supposes the stimulant power of Rosemary insufficient to reach the sanguiferous system;<sup>e</sup>

<sup>b</sup> It is called *Λιβανωτός* by the Greeks, (Dioscor. *Lib.* 3. *cap.* 89.) Pliny, *Lib.* 24. *cap.* 11. *de re re marina*. Hence it may have been alluded to by Virgil in the following lines:

Nam jejuna quidem clivosi glarea ruris  
Vix humiles apibus casias roremque ministrat.

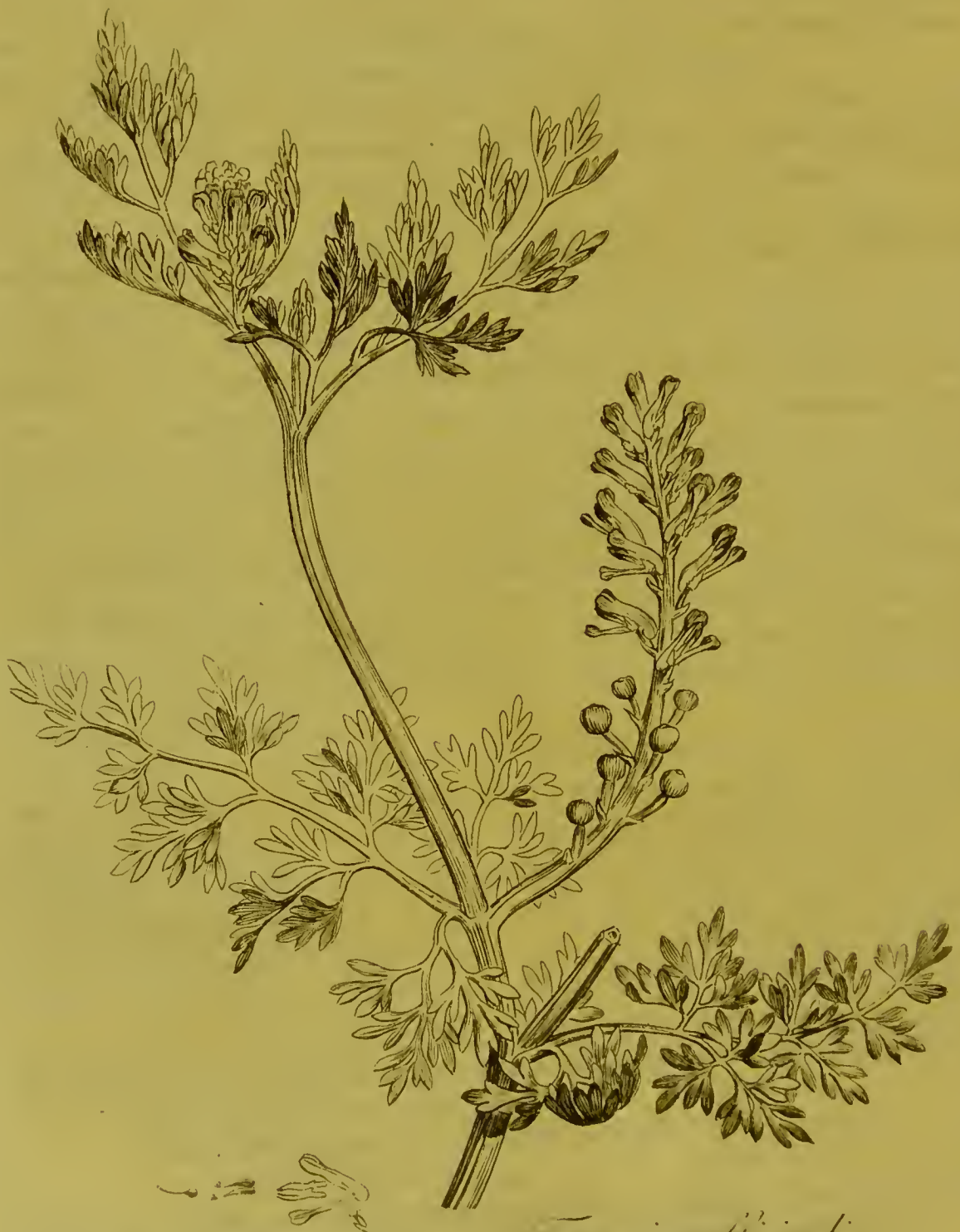
GEORG. ii. v. 212.

<sup>c</sup> *Lewis M. M.* p. 544.

<sup>d</sup> *Lewis, l. c.*

<sup>e</sup> “It has justly had the reputation of a cephalic, or as a medicine that gently stimulates the nervous system, but hardly so strongly as to affect the sanguiferous.” *M. M.* vol. ii. p. 151.





*Fumaria officinalis*

Enligned by Dr. Woodville June 1. 1791.



it has however the character of being an emmenagogue, and the only disease in which Bergius states it to be useful is the chlorosis.<sup>f</sup> The officinal preparations of this plant are the oleum essentielle roris marini, and the spiritus roris marini. It is also a principal ingredient in what is known by the name of Hungary water.

By many people Rosemary is drunk as tea for breakfast.

<sup>f</sup> “*Virtus*: resolvens, nervina corroborans, emmenagoga. *Ujus*. Chlorosis.”—*M. M.* p. 21.

## FUMARIA OFFICINALIS. COMMON FUMITORY.

*SYNONYMA.* Fumaria. *Pharm. Edinb.* Fumaria officinarum et Dioscoridis. *Baub. Pin.* p. 143. Fumaria purpurea. *Gerard. Emac.* p. 1088. Fumaria vulgaris. *Park. Theat.* p. 287. *Raii Hist.* p. 405. *Synop.* p. 284. Fumaria foliis multifidis lobis subrotunde lanceolatis; fructibus monospermis. *Hal. Stirp. Helv. n.* 346. *Hudson Flor. Ang.* p. 270. *Lightfoot Flor. Scot.* p. 379. *Curtis Flor. Lond. n.* 112. *Withering Bot. Arrang.* p. 751.

*Class* Diadelphia. *Ord.* Hexandria. *Lin. Gen. Plant.* 849.

*Eff. Gen. Ch.* Cal. dyphyllus. Cor. ringens. Filamenta 2, membranacea, lingula *Antheris* 3.

*Sp. Ch.* F. pericarpis monospermis racemosis, caule diffuso.

THE root is annual, slender, and fibrous: the stalk is spreading, smooth, somewhat angular, bending, much branched, and usually rises above a foot in height: the leaves are compound, doubly pinnated, pinnulæ trilobed, of a pale green colour, and standing upon slender footstalks: the flowers are of a reddish purple colour, and grow in spikes, which arise from the axillæ of the leaves: the bractæ are linear, purplish, and placed at the base of the peduncles: the calyx

calyx is composed of two deciduous equal leaflets, slightly indented at the edges: the corolla is oblong, tubular, gaping, or ringent, the palate projecting so as to fill up the mouth; the *upper lip* dilated at the tip, keel-shaped, hollow beneath, turned a little upwards at the margin, and at the base obtuse, and curled inward; the *lower lip* is nearly similar to the upper; the *lateral petals* cohere at the top, and form a quadrangular mouth, in which there are three divisions on the upper and lower part: the filaments are two, membranous, broad at the base, and each furnished with three yellowish antheræ: the germen is oval: the style is filiform, about the length of the filaments, and crowned with a flattish downy stigma: the seed is roundish, and contained in a small heart-shaped pod. Fumitory is common in corn fields, and usually flowers in May.

By the Ancients this plant was named Capnos,<sup>a</sup> from being thought to be peculiarly useful in dimness of sight, and other diseases of the eyes. The leaves, which are the part of the plant directed for medicinal use by the Edinburgh College, are extremely succulent, and have no remarkable smell, but a bitter somewhat saline taste. “The expressed juice, and a decoction of the leaves in water, inspissated to the consistence of extracts, are very bitter, and considerably saline; on standing for some time they throw up to the surface copious saline efflorescences, in figure somewhat resembling the crystals of nitre, to the taste bitterish and slightly pungent. A tincture of the dry leaves, in rectified spirit, yields, on inspissation, an extract less in quantity and bitterer in taste than either the watery extract or inspissated juice.”<sup>b</sup> Fumitory has been supposed by several Physicians of great authority,<sup>c</sup> both ancient and modern, to be very efficacious in opening obstructions and infarctions of the viscera, particularly those of the hepatic system: it is also highly commended for its power of correcting a scorbutic and acrimonious state of the fluids; and has therefore been

<sup>a</sup> Καπνος Dioscor. Καπνιος Gal. i. c. fumus — “Claritatem facit inunctis oculis, delachrymationemque, ceu fumus; unde nomen.” Plin. L. 25. cap. 13. See also Galen. Simp. Lib. 7. p. 49.

<sup>b</sup> Lewis M. M. p. 315.

<sup>c</sup> Aetius, Boerhaave, F. Hoffman, and many others.

The juice of Dandelion and Fumitory is greatly commended by Leidenfrost in obstinate diseases of the skin. See *Diff. de succis herb. &c.*

An infusion of the leaves is used as a cosmetic to remove freckles and clear the skin.  
employed







*Spartium scoparium*

Published by Dr Woodville June 1 1794.

employed in various cutaneous diseases ; when taken in pretty large doses it proves diuretic and laxative, especially the juice, which may be mixed with whey, and used as a common drink. Dr. Cullen classes this plant among the tonics ; he says, “ it is omitted in the London dispensatory, but retained in our's, and in every other that I know of. I have found it useful in many cases in which bitters are prescribed ; but its remarkable virtues are those of clearing the skin of many disorders. For this it has been much commended ; and I have myself experienced its good effects in many instances of cutaneous affections, which I would call Lepra. I have commonly used it by expressing the juice, and giving that to two ounces twice a day : but I find the virtues remain in the dried plant, so that they may be extracted by infusion or decoction in water ; and the foreign dispensaries have prepared an extract of it, to which they ascribe all the virtues of the fresh plant.”

<sup>d</sup> *M. M. vol. ii. p. 77.*

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SPARTIUM SCOPARIUM.      COMMON BROOM.

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*SYNONYMA.* Genista. *Pharm. Lond. & Edinb. Gerard. Emac. p. 1311.* Genista angulosa & scoparia. *Baub. Pin. p. 395.* Genista vulgaris & scoparia. *Park. Theat. p. 228.* Genista angulosa trifolia. *J. Baub. Hist. vol. i. p. 388.* *Ray Hist. p. 1723.* *Synop. p. 474.* Spartium foliis inferioribus ternatis hirsutis superioribus simplicibus. *Hall. Stirp. Helv. n. 354.* Spartium scoparium. *Hudson. Flor. Ang. p. 310.* *Withering. Bot. Arrang. p. 756.* *Flor. Dan. p. 313.*

*Class* Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant. 858.*

*Eff. Gen. Ch.* Stigma longitudinale, supra villosum. Filamenta germini adhærentia. *Cal.* deorsum productus.

*Sp. Ch.* S. foliis ternatis solitariisque, ramis inermibus angulatis.

THE root is woody, tough, and extends to a considerable length: the stalk is shrubby, branched, and covered with light brown bark: it usually rises from four to six feet in height, and sends forth a great number of slender angular green shoots: the leaves are small, downy, divided into three oval leaflets, and standing upon footstalks of different lengths: the flowers are large, numerous, of the papilionaceous shape, and of a bright yellow colour: the calyx is tubular, divided transversely at the margin into two lips, of these the uppermost is entire, the undermost slightly notched: the corolla is composed of five petals: the superior, or standard petal is inversely heart-shaped, and bent backwards: the two lateral petals, or wings, are oblong, convex, less than the standard, and united to the filaments: the keel is composed of the two undermost petals, which are connected together by soft hairs at the margin, so as to appear keel-shaped: the filaments are ten, nine of which are united at the base, of unequal length, curled inwards, and furnished with oblong antheræ: the germen is flat, oblong, hairy, and supports a slender style, with an oblong stigma: the seeds are round, or somewhat kidney-shaped, and contained in a long cylindrical pod, like that of the garden pea. It is common in dry sandy pastures, and flowers in April and May.

Linnaeus, Bergius,<sup>a</sup> and several other writers seem to have confounded the medicinal qualities of this plant with those of *Genista tinctoria*: the officinal *Genista* is however by the British Pharmacopœias considered to be the common Broom, of which the tops and seeds are directed for use. The tops and leaves of Broom have a nauseous bitter taste, which they impart by infusion both to water and spirit. They are commended for their purgative and diuretic qualities, and have therefore been successfully employed in hydropic cases, of which particular instances are related by Mead<sup>b</sup> and others, to which we may add the following from Dr. Cullen: “ *Genista*, though very little in use, I have inserted in my catalogue (of

<sup>a</sup> They both say of *G. tinctoria*, “ VIRTUS: pellens, purgans, Usus: Hydrops;” while the common broom is passed unnoticed. See *M. M. Lin.* p. 170. *Berg.* p. 598.

<sup>b</sup> *Mon. & Præc.* p. 138. where we are told that a patient by taking half a pint of a decoction of green Broom tops, with a spoonful of whole mustard seed, every morning and evening, was cured, after being tapped three times, and trying the usual remedies given in dropsies. See also *Möhring Aët. N. C.* vol. v. p. 32.



cathartics) from my own experience of it. I found it first in use among our common people; but I have since prescribed it to some of my patients in the manner following: I order half an ounce of fresh Broom tops to be boiled in a pound of water till one half of this is consumed, and of this decoction I give two table-spoonfuls every hour till it operates by stool, or till the whole is taken. It seldom fails to operate both by stool and urine, and by repeating this exhibition every day, or every second day, some dropsies have been cured.”<sup>c</sup> The ashes of Broom have also been much used in dropsies, and principally on the authority of Sydenham,<sup>d</sup> whose account of their good effects has been since confirmed by the testimony of Dr. Monro,<sup>e</sup> and other writers.<sup>f</sup> We may observe however that the efficacy of this medicine must depend entirely upon the alkaline salt, and not in the least upon the vegetable from which it is obtained. The seeds and flowers of Broom are said to be emetic and cathartic; but the evidence upon which this assertion rests is not wholly to be relied upon, as the former when roasted have been used as a substitute for coffee, and the latter employed as a pickle.<sup>g</sup>

<sup>c</sup> *Mat. Med. vol. ii. p. 534.*

<sup>d</sup> *Opera, p. 497.*

<sup>e</sup> He gave a dram divided into three doses every day. *On Dropsy, p. 64.*

<sup>f</sup> See Odhelius in *Vet. Acad. Handl. 1762. p. 82.*

<sup>g</sup> Purgat genistæ semen non minùs potenter fere quàm Spartium aut Helleborus, &c. Idem confirmat Lobelius, semine Genistæ scopariæ voinitum non secus ac Spartio Diosc. sæpius ʒii decocto propinato citra magnam contentionem se movisse scribens. Verùm flores recens decerptos sæpissimè quamplurimos & per se acetariis inditos vorat, (inquit plebecula Arverna and Aquitanix maximà copià innocuos non modò sed etiam admodum gustui suaves; nec quicquam vomitionis nausæve, aut commotionis movere solent. Quin apud Brabantos, & Anglos non minùs, gemmantes dum adhuc virides sunt condiuntur sale & aceto flores, menisque inferuntur, Capparum Olearumve pari commendatione. *Ray l. c.* Ray also informs us, that from the MS. of Dr. Hulse, he learned that the flor. genist. given in the form of electuary, with honey of roses, were found of great efficacy in scrophulous affections.

## ORCHIS MASCULA.

## ORCHIS MASCULA.

## MALE ORCHIS.

*SYNONYMA.* Satyrion. *Pharm. Edinb.* Orchis morio mas foliis maculatis. *Bauh. Pin. p. 81.* *Park. Theat. p. 1346.* *Raii Hist. p. 1214.* *Synop. p. 376.* Cynosorchis morio mas. *Gerard. Emac. p. 208.* Orchis radicibus subrotundis; petalis lateralibus reflexis; labello trifido; segmento medio longiori, bifido. *Hal. Stirp. Helv. n. 1286. tab. 33.* Orchis mascula. *Hudson Flor. Ang. p. 333.* *Lightfoot Flor. Scot. p. 515.* *Flor. Dan. t. 457.* *Curt. Flor. Lond. t. 121.*

*Class* Gynandria. *Ord.* Diandria. *Lin. Gen. Plant. 1009.*

*Eff. Gen. Ch.* Nectarium corniforme pone florem.

*Sp. Ch.* O. bulbis indivisis, nectarii labio quadrilobo crenulato: cornu obtuso, petalis dorsalibus reflexis.

THE root is perennial, consisting of two roundish bulbs, from the upper part of which several small fibres are produced: the stalk is upright, round, smooth, solid, simple, purplish towards the top, and rises about a foot in height: the leaves are radical, long, pointed with a sharp prominent midrib, and commonly marked with dark coloured spots: the flowers are purplish, and terminate the stem in a long regular spike: the bractæ are membranous, purple, lance-shaped, and generally twisted at their points: the corolla is composed of five petals, two of which are upright, of an oval pointed shape, and their tips bent inwards: the other three are placed outwardly, and approach so as to form a galea, or helmet: the lip is large, with three lobes, of which that in the middle is the longest; they are notched, and spotted towards the base, which is white; the nectarium is lengthened out behind into a tubular part, resembling a little horn: the filaments are two, short, inserted in the germen, and furnished with oval antheræ, which are incased in the limb of the nectary: the germen is oblong and twisted: the style is short, with a compressed stigma: the capsule is oblong, and contains numerous small seeds. It is common in meadows, and flowers in April and May.

This



*Orchis mascula*

Published by W. Woodville June 1 1791





This plant has a place in the *Materia Medica* of the Edinburgh Pharmacopœia only on account of its roots, which abound with a glutinous slimy juice, of a sweetish taste; to the smell they are faint, and somewhat unpleasant.

This mucilaginous or gelatinous quality of the Orchis root has recommended it as a demulcent, and it has been generally employed with the same intentions and in the same complaints as the root of *Althæa* and gum arabic, both of which we have already noticed.

Salep, which is imported here from the East, and formerly held in great estimation, is now well known to be a preparation of the root of Orchis|| which was first suggested by Mr. J. Miller,† and different methods of preparing it have been since proposed and practised: of these the latest and most approved is that by Mr. Mault, of Rochdale,<sup>a</sup> which we shall transcribe from the words of Dr. Percival,<sup>b</sup> who follows Mr. Mault in recommending the cultivation of a plant in Britain which promises to afford so useful and wholesome a food as the Salep.

Dr. Percival says, “ Mr. Mault has lately favoured the public with a new manner of curing the Orchis root, and as I have seen many specimens of his Salep, at least equal if not superior to any brought from the Levant, I can recommend the following, which is his process, from my own knowledge of its success. The new root is to be washed in water, and the fine brown skin which covers it is to be separated by means of a small brush, or by dipping the root in hot water, and rubbing it with a coarse linen cloth. When a sufficient number of roots have been thus cleaned, they are to be spread on a tin plate, and placed in an oven heated to the usual degree, where they are to remain six or ten minutes, in which time they will have lost their milky whiteness, and acquired a transparency like horn, without any diminution of bulk. Being arrived at this state, they are to be removed, in order to dry and harden in the air, which will require

|| *Orchis mascula*, though the chief, is not the only species from which the Salep is prepared.

† Joseph Miller (*Botan. offic.* 1722. p. 385) to which we may add the names of *Hebe* and *Heister*. This was first confirmed by Buxbaum (*Plant. min. cogn.* Cent. 3. p. 5.) See Murray, *Ap. Med.* vol. 5. p. 280.

<sup>a</sup> See *Phil. Transf.* vol. 59. p. 2.

<sup>b</sup> Percival's *Essays Med. & Exper.* vol. ii. p. 39.

several days to effect; or by using a very gentle heat they may be finished in a few hours.”<sup>c</sup>

Salep, considered as an article of diet, is accounted extremely nutritious, as containing a great quantity of farinaceous matter in a small bulk, and hence it has been thought fit to constitute a part of the provisions of every ship's company to prevent a famine at sea. For it is observed by Dr. Percival, that this powder and the dried gelatinous part of flesh, or portable soup, dissolved in boiling water, form a rich thick jelly, capable of supporting life for a considerable length of time. An ounce of each of these articles, with two quarts of boiling water, will be sufficient subsistence for one man a day.<sup>d</sup> Dr. Percival not only recommends the use of Salep as other authors have done in diarrhœa, dysentery, dysury, and calculous complaints; but he thinks “in the symptomatic fever, which arises from the absorption of pus, from ulcers in the lungs, from wounds, or from amputations, Salep used plentifully is an admirable demulcent, and well adapted to resist that dissolution of the crasis of the blood which is so evident in these cases.”

The supposed aphrodisiac qualities of this root, which have been noticed ever since the time of Dioscorides, seem to be founded on the fanciful doctrine of signatures.<sup>e</sup>

<sup>c</sup> The properest time for gathering the roots is when the seed is formed, and the stalk is ready to fall, because the new bulb, of which the Salep is made, is then arrived to its full maturity, and may be distinguished from the old one by a white bud rising from the top of it, which is the germ of the orchis of the succeeding year. *Percival, l. c.*

<sup>d</sup> Percival l. c. See also Lind's Appendix to his Essay on the Diseases of Hot Climates.

“Salep ex orchide morione in Succia paratum citius solvi se passum est, quam Persicum, et tam tenacem mucilaginem exhibuit octo ejus grana in aquæ fervidæ unica unc. h. e. radicem in 60-plo aquæ solvendo, ut per pannum linteum non perfecte transigi posset, sed affundi insuper deberet aquæ fervidæ uncia dimidia, quo auxilio mucilago ista densitate æquavit alteram ex Salep Persico uncia una aquæ elicita: remansit vero residui ex isto Succico Salep granum 1½ et Persico gr. i. Murray l. c. See *Vet. Acad. Handl.* 1764. p. 245. *sq.*

<sup>e</sup> Orchis, i. e. *Orchis*, Testiculus, habet radices instar testiculorum.

CISTUS CRETICUS.







*Cistus creticus*

Published by D<sup>r</sup> Woodville July A. 1791.

## CISTUS CRETICUS.

## CRETAN CISTUS.

Planta à qua colligitur *LADANUM*. *Pharm. Lond.*

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*SYNONYMA.* Cistus ladanifera cretica, flore purpureo. *Tournef. Coroll. Inst. rei herb. p. 19. Voyage du Levant. t. i. p. 29.* Cistus ladanifera vera. *Park. Theat. p. 666.* Cistus, Ledon Cretense. *Baub. Pin. p. 467.* Cistus Ledon Matthioli. *Gerard. Emac. p. 1286.* Cistus (*creticus*) arborescens, foliis ovato-lanceolatis, hirsutis, marginibus undulatis, floribus terminalibus. *Miller. Dict. Jacqu. ic. collect. i. p. 80.*

*Class* Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant. 673.*

*Eff. Gen. Ch.* Cor. 5-petala. *Cal.* 5-phyllus: foliolis duobus minoribus. *Capsula.*

*Sp. Ch.* C. arborescens exstipulatus, foliis spatulato-ovatis petiolatis enerviis scabris, calycinis lanceolatis.

THIS handsome shrub seldom rises to any considerable height; it is covered with a dark coloured bark, and sends off several simple branches: the leaves are oblong, pointed, waved, rough, viscous, veined, and stand in pairs upon short footstalks, which are broad at the base, so as nearly to surround the younger branches: the flowers are produced in succession at the extremities of the branches in June and July; they are large, of a purplish red colour, marked with dark spots at the base of each petal, and stand on short peduncles: the calyx is divided in five large oval pointed persistent segments, of which the two outermost are the smallest: the corolla is composed of five petals, which are large, roundish, spreading, and readily fall off on being touched: the filaments are numerous, very short, slender, and supplied with simple antheræ of an orange colour: the germen is oval, and supports a short style, furnished with a flat circular stigma: the capsule is roundish, and contains many small orbicular seeds.

This



This shrub, which is a native of Candia and some of the islands of Archipelago, was first cultivated in England by Mr. P. Miller in the year 1731,<sup>a</sup> and is now to be had of several of the London gardeners, though it is not so commonly met with as many other exotic species of this genus. Not only this plant, but most of its congeners, abound with a glutinous liquor, which in summer exudes upon their leaves, and seems to be of the ladanum kind: but it is well known, that the *Cistus creticus* is the species from which the officinal Ladanum is collected. This is done in Candia by means of an instrument call there *Ergastiri*, made in the form of a rake, to which several leathern thongs are fixed instead of teeth, and with which the leaves of the shrub are lightly brushed backwards and forwards, so that the fluid Ladanum may adhere to the leather, from which it is afterwards scraped off with knives, and formed into regular masses for exportation.<sup>b</sup>

As this drug is observed to issue most copiously in the hottest weather, the method of gathering above described must be performed when the intensity of the sun's heat renders it a very laborious and troublesome employment.

Three sorts of Ladanum have been described by authors, but only two are now to be met with in the shops. "The best, which is very rare, is in dark-coloured masses, of the consistence of a soft plaster, growing still softer on being handled: the other is in long rolls, coiled up, much harder than the preceding, and not so dark. The first has commonly a small and the last a large admixture of fine sand, which in the Labdanum examined by the French Academy amounted to three-fourths of the mass. It is scarcely indeed to be collected pure, independently of designed abuses; the dust blown on the plant by winds from the loose sands among which it grows, being retained by the tenacious juice. The soft kind has an agreeable smell, and a lightly pungent bitterish taste: the hard is much weaker.

<sup>a</sup> See Aiton's Hort. Kew.

<sup>b</sup> See Belon. *Observations de plusieurs singularités en Grece, Asie, &c.* Lib. i. c. 7. and Tournefort. *Voyage du Levant.* t. i. p. 29. where the Ergastiri is described and figured.

By the ancients we are told, that the *Λαδανον* was collected by combing the beards and thighs of goats who browsed upon the cistus, and to whose hair the drug was found to adhere: another method of gathering it, was by drawing cords over those shrubs which produced it. See Dioscorides, *Mat. Med.* Lib. i. p. 128. and Pliny, *Hist. Nat.* Lib. xii. cap. xvii.





*Anchusa tinctoria*

Published by D. Woodville July 1. 1794.



Rectified spirit of wine dissolves nearly the whole of pure Labdanum into a golden-coloured liquor: on inspissating the filtered solution, the finer parts of the Labdanum rises with the spirit, and the remaining resin proves both weaker and less agreeable than the juice at first. On infusing the Labdanum in water, it impregnates the liquor considerably with its smell and taste, and in distillation with water, there comes over a fragrant essential oil.”<sup>d</sup>

This resin was formerly much employed internally as a pectoral and astringent in catarrhal affections, dysenteries, and several other diseases; at present however it is wholly confined to external use, and is an ingredient in the stomachic plaster, or emplastrum landani of the London Pharm. It is also sometimes used in the way of fumigation.

<sup>d</sup> Lewis, *M. M.* p. 368.

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## ANCHUSA TINCTORIA. DIERS BUGLOSS, or ALKANET.

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*SYNONYMA.* Anchusa. . *Pharm. Edinb.* Anchusa puniceis floribus. *Baub. Pin.* p. 255. Anchusa Monspeliana. *J. Baub. Hist. vol. iii.* p. 583. *Raii Hist.* p. 496. Anchusa Alcibiadion. *Gerard. Emac.* p. 800. Anchusa minor purpurea. *Park. Theat.* p. 517. Alkanna. *Pharm. Suic. Wert. &c.*

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 182.

*Eff. Gen. Ch.* Cor. infundibulif. fauce clausa fornicibus. *Sem.* basi insculpta.

*Sp. Ch.* A. tomentosa, fol. lanceolatis obtusis, stamin. corolla brevioribus.

THE root is perennial, long, round, fibrous, and externally of a dark purplish red colour: the stalk is thick, round, rough, hairy, branched, and rises about two feet in height: the leaves are long, lance-shaped, obtuse, hairy, and without footstalks: the flowers vary from a purplish to reddish colour, and terminate the branches in close clusters: the calyx is divided into five oblong erect rough persistent

segments: the corolla is monopetalous, and funnel-shaped, consisting of a cylindrical tube, equal in length to the calyx, divided at the limb into five blunt teeth, and closed at the faux or centre by five small prominent scaly leaflets: the five filaments are short, included in the tube of the corolla, and furnished with simple antheræ: the germens are four: the style is filiform, about the length of the stamina, and supplied with an obtuse notched stigma: the seeds are four, of an irregular shape, and lodged within the calyx. It flowers from June till October.

This species of *Anchusa* \* is a native of Montpellier, and was cultivated in Britain by Mr. James Sutherland, in the year 1683.<sup>a</sup> It is propagated by our gardeners for the beauty of its flowers, but in this climate its roots never acquire that deep colour on which its utility depends. The red cortical part of the root of this plant, as imported here from the southern parts of Europe, when separated from the interior white part, imparts a fine deep red to oils, wax, and all unctuous substances, and to rectified spirit of wine; on this account the Edinburgh College introduces it into their catalogue of the *Materia Medica*. "To water this root gives only a dull brownish hue. The spirituous tincture, on being inspissated to the consistence of an extract, changes its fine red to a dark brown. In these general properties the deep and pale roots agree one with another, and differ from all the rest of the red drugs we know of: it is not therefore probable, that the deep colour of the foreign roots is owing, as some have supposed, to the introduction of an extraneous tincture."<sup>b</sup> Formerly the Alkanet root was recommended in several diseases, particularly as an astringent, and it manifests this quality in some degree to the taste;<sup>c</sup> but it is now used in no other way than for colouring oils,<sup>d</sup> ointments, and plasters, which receive a fine deep red from one fortieth their weight of the root.

\* *Anchusa* ab *αγχω* strangulo, suffico, quod serpentes strangulet necetque. Hac vi pollere est auctor Nicander, Dioscorides, Plinius, Galenus, &c. *Bad. in Theoph.* p. 835.

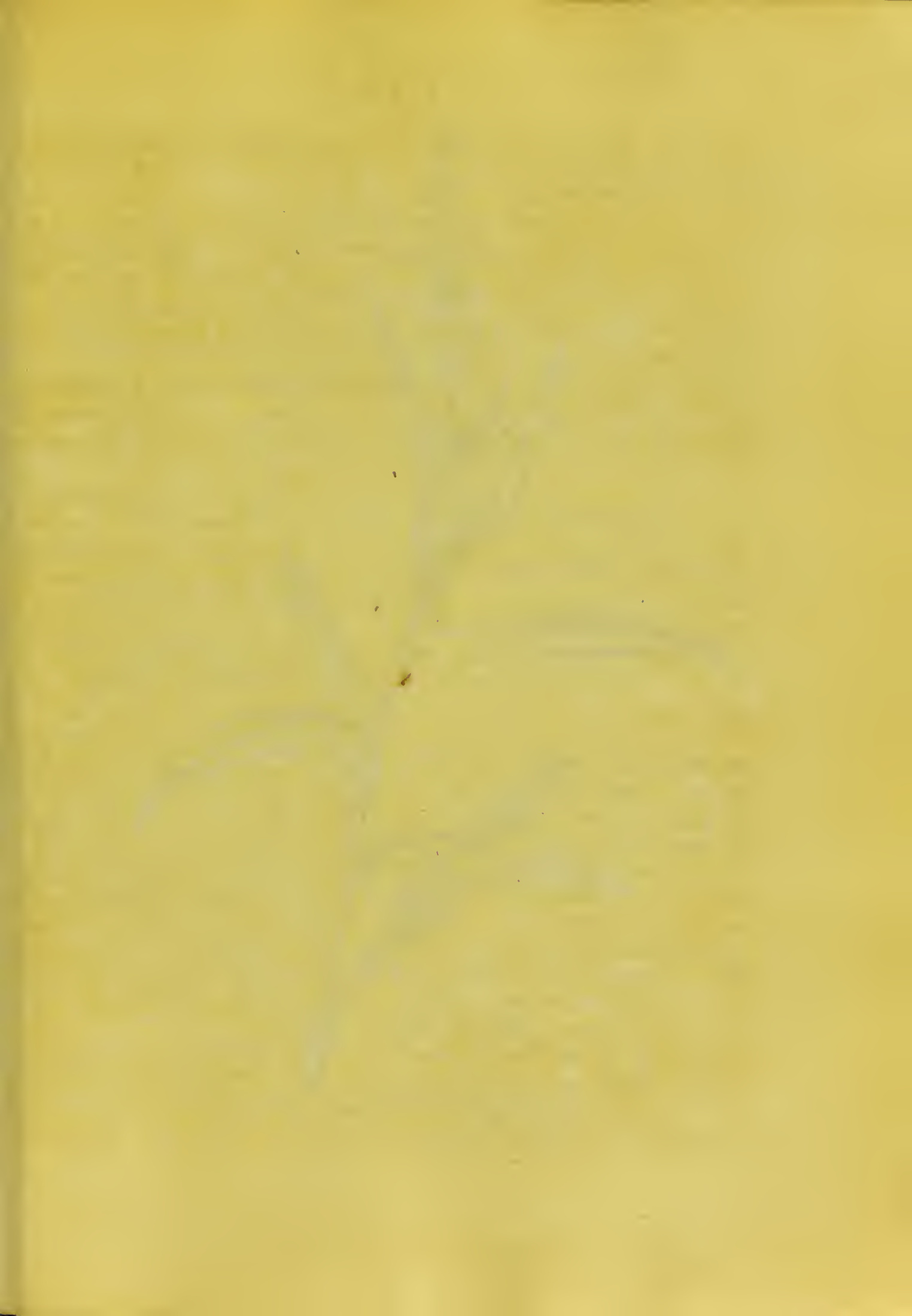
<sup>a</sup> Sutherland. *Hort. Edin.* 24. no. 7. See Aiton's *Hort. Kew.*

<sup>b</sup> Lewis *Mat. Med.* p. 56.

<sup>c</sup> Alston could not discover this quality in the *Anchusa*. *M. M. vol. i.* p. 365.

<sup>d</sup> It is also used with oil by the cabinet-makers to stain mahogany and other woods.

## POLYGALA SENEGA.







*Polygala Senega*

Published by Dr. Woodville July. 1. 1791.

## POLYGALA SENEGA.

RATTLESNAKE-ROOT  
MILK-WORT.

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*SYNONYMA.* Seneka. *Pharm. Lond. & Edinb.* Polygala marilandica, caule non ramoso, spica in fastigio singulari gracili e flosculis albis composita. *Raii App. vel. Hist. tom. iii. p. 670.* Polygala caule simplici erecto, foliis ovato-lanceolatis alternis integerrimis, racemo terminali erecto. *Gron. Flor. Virgin. i. p. 80.* Polygala Senega. *Amæn. Acad. Tom. iii. p. 124.* *Miller's Dict. Fig. Ed. 7.* Senegau. *Trew. Comm. Litt. Nor. 1741. Tab. 4.*

*Class* Diadelphia. *Ord.* Octandria. *Lin. Gen. Plant. 851.*

*Ess. Gen. Ch.* *Cal.* 5-phyllus: foliolis alæformibus, coloratis.  
*Legumen* obcordatum, biloculare.

*Sp. Ch.* P. floribus imberhibus spicatis, caule erecto herbaceo simplicissimo, foliis lato-lanceolatis.

THE root is perennial, woody, branched, contorted, about the thickness of a finger, and covered with ash-coloured bark: it sends up several stems, which are simple, erect, slender, round, smooth, of a dark reddish colour, and rise nearly a foot in height: the leaves are oblong, or lance-shaped, acutely pointed, of a pale green colour, and stand alternately upon short footstalks: the flowers appear in June, they are white, of the papilionaceous kind, and grow in a close terminal spike: the calyx is divided into three narrow persistent segments, two of which are placed beneath and one above the corolla: the corolla is composed of two exterior petals, or *wings*, which are flat, and of an oval shape; a short tubular *standard*, undivided at the mouth; and a flattened *keel* distended towards the end, from whence proceeds a pencil-shaped appendage: the filaments are eight, united at the base into two portions, and supplied with simple antheræ: the germen

germen is oblong, and supports a simple erect style, furnished with a cloven stigma: the capsule is inversely heart-shaped, and contains several small oblong seeds.

This plant is a native of Virginia, and other parts of North America. It was first cultivated in England in 1759, by Mr. P. Miller,<sup>a</sup> who has published a figure of it, which will be found to accord very accurately with the icon here annexed, which was drawn from the plant now in flower at the Royal garden at Kew. "This root, of no remarkable smell, has a peculiar kind of subtile pungent penetrating taste."<sup>b</sup> Its virtue is extracted both by water and spirit, though the powder in substance is supposed to be more effectual than either the decoction or tincture. The watery decoction, on first tasting, seems not unpleasant, but the peculiar pungency of the root quickly discovers itself, spreading through the fauces, or exciting a copious discharge of saliva, and frequently, as Linnæus observes, a short cough: those to whom I have directed this medicine, have generally found a little Madeira most effectual for removing its taste from the mouth, and making it sit easy on the stomach. A tincture of the root, in rectified spirit, is of more fiery pungency, extremely durable in the mouth and throat, and apt to promote vomiting or reaching."<sup>c</sup> Rattlesnake-root was first introduced to the attention of physicians about sixty years ago, by Dr. John Tennent,<sup>d</sup> whose intercourse with the Indian nations led him to discover that they possessed a specific medicine against the poison of the rattlesnake,|| which, in consequence of a suitable reward, was revealed to him, and found to be the root of this plant, which the Indians employed both internally and externally.<sup>e</sup> Cases afterwards occurred, by which he was fully convinced of the efficacy of this medicine from his own experience. And as the Doctor observed,

<sup>a</sup> *Diët. Ed. 7. n. 5. See Hort. Kew.*

<sup>b</sup> Bergius says, "Sapor primum calidiusculus, deinde acidulus in faucibus sentitur cum specie acrimoniæ, inhærens cum siccitate." *M. M. p. 596.*

<sup>c</sup> Lewis, *M. M. p. 518.* <sup>d</sup> See his *Physical Disquisitions, P. 2. Lond. 1735.*

|| A fortiori, it is presumed to cure the poisonous effects of other serpents, as being less virulent. Testatur exemplum ancillæ Succicæ, quæ alvi dejiendæ causa ruri pone fruticem secedens a serpente quodam (Colubro Bero sine dubio) et in mulieribus ipsis vulnerabatur sub gravissimorum symptomatum satellitio, sed duabus unice dosibus ab ill. a Linné subministratis convaleuit. *Amæn. Acad. vol. vi. p. 214.*

<sup>e</sup> Chewed and applied to the wound, or in the form of a cataplasim.



that pleuretic or peripneumonic symptoms † were generally produced by the action of this poison, he hence inferred, that the Rattlesnake-root might also be an useful remedy in diseases of this kind. It was accordingly tried in pleurifies not only by Tennent himself,<sup>f</sup> but by several of the French academicians and others,<sup>g</sup> who all unite in testimony of its good effects. However, in many of these cases, recourse was had to the lancet, and even the warmest advocates for the Seneka say, that in the true pleurisy repeated bleeding is at the same time not to be neglected. The repute which this root obtained in peripneumonic affections, induced some to employ it in other inflammatory disorders, in which it proved serviceable, particularly in rheumatism.<sup>h</sup> It has also been prescribed with much success in dropsies,<sup>i</sup> and this we can the more easily credit from its effects in increasing the different secretions, for it is remarked that it produces a plentiful spitting, increases perspiration and urine, and frequently purges or vomits. It is likewise reported to be a medicine of great power, in rendering the viscosity of the blood more fluid; De Haen however brings a strong fact to contradict this opinion.<sup>k</sup> The usual dose is from one scruple to two of the powder, or two or three spoonfuls of a decoction, prepared by boiling an ounce of the root in a pint and a half of water till it is reduced to one pint.

† As difficulty of breathing, cough, hæmoptysis, a strong quick pulse, &c.

<sup>f</sup> See his *Ess. on the Pleurisy*. Philad. 1736. Also his *Epistle to Dr. Mead*.

<sup>g</sup> Lemery, De Jessieu, Du Hamel, Bouuvart, for which see *Mem. de l'Acad. de Paris*, 1739, & 1744.

<sup>h</sup> *Comm. Noric.* 1741. p. 362. *Sarcone Geschichte d. Krankh. in Neapel*, Tom. i. p. 108, 169, 173, 199. And Dr. Cullen says, "We have had some instances of its being useful, especially where it operated by producing sweat." *M. M.* vol. ii. p. 533.

<sup>i</sup> Bouvart. l. c. Mackenzie, *Med. Obs. & Inq.* vol. ii. p. 288. See also Percival, *Essays*, vol. ii. p. 178.

<sup>k</sup> *Ratio Medend.* P. 4. p. 252.

## JUNIPERUS SABINA.

## COMMON SAVIN.

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*SYNONYMA.* Sabina. *Pharm. Lond. & Edinb.*

Varietates sunt,†

- α Sabina foliis Cupressi. *Baub. Pin. p. 487.* Sabina baccifera. *J. Baub. Hist. vol. i. p. 288.* Gerard. *Emac. p. 1376.* Sabina baccifera major. *Park. Theat. p. 1026.* Cedrus baccifera fructu minore cæruleo. *Raii Hist. p. 1415.* Juniperus foliis cauli adpressis lanceolatis, alterne conjugatis. *Hal. Stirp. Helv. n. 1662.*
- β Sabina folio Tamarisci Dioscoridis. *Baub. Pin. p. 487.* Sabina sterilis. *Gerard. Emac. p. 1378.* Sabina vulgaris. *Park. Theat. p. 1027.* *Raii Hist. p. 1415.* *Σπαθὺς Græcorum.*

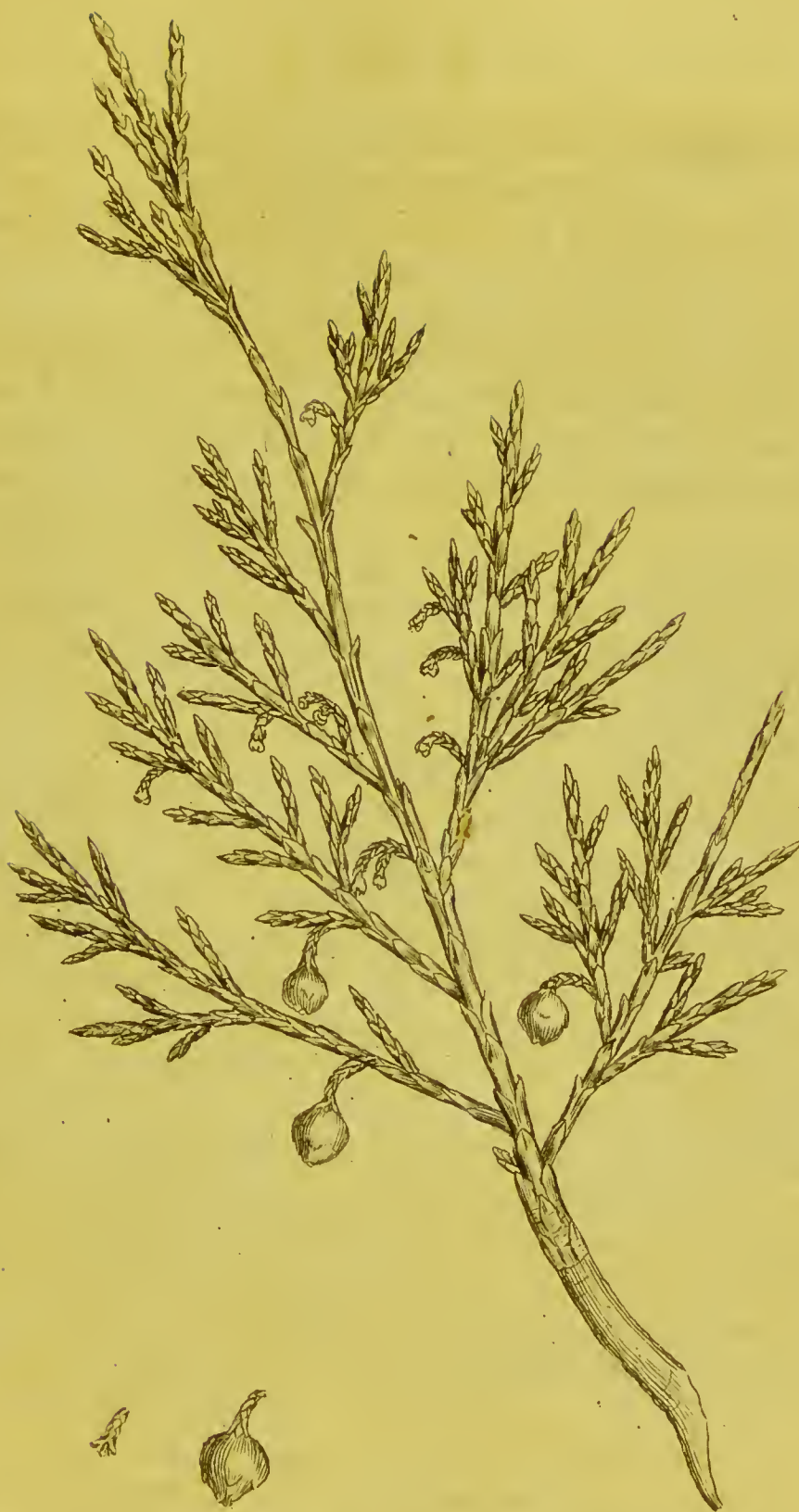
*Glass* Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1134.

*Eff. Gen. Ch.* *MASC.* Amenti Calyx squamæ. *Cor.* 0. *Stam.* 3.  
*FEM.* *Cal.* 3-partitus. *Petala* 3. *Styli* 3. *Bacca*  
 3-sperma, tribus tuberculis calycis inæqualis.

*Sp. Ch.* J. foliis oppositis erectis decurrentibus: oppositionibus pyxidatis.

THIS shrub rises but a few feet in height: it is covered with a reddish brown bark, and sends off many branches, which are numerously subdivided: the leaves are numerous, small, erect, opposite, firm, and wholly invest the younger branches, which they terminate in sharp points: the flowers are male and female on different plants: the calyces of the *male flowers* stand in a conical catkin, which consists of a common spike-stalk, in which three opposite flowers are placed in a triple row, and a tenth flower at the end. At the base of each flower is a broad short *scale* fixed laterally to a columnar pedicle: there is no corolla: the filaments in the *terminating* flower are three, taper-

† These two varieties are precisely the same as those noticed by Dioscorides. See L. I. C. 104.



*Juniperus Sabina*

Engraved by R. Woodville July 1. 1791.





ing, united at the bottom into one body, and furnished with simple antheræ, but in the lateral flowers the filaments are scarcely perceptible, and the antheræ are fixed to the scale of the calyx; the calyx of the *female flowers* is composed of three small permanent scaly segments, growing to the germen: the petals are three, stiff, sharp, permanent: the germen supports three styles, supplied with simple stigmata: the fruit is a roundish fleshy berry, marked with tubercles, which are the vestiges of the petals and calyx; when ripe the berry is of a blackish purple colour, and contains three small hard irregular shaped seeds. It flowers in May and June.

Savin is a native of the South of Europe and the Levant: it has been long cultivated in our gardens,<sup>a</sup> and from producing male and female flowers on separate plants it was formerly distinguished into the barren and berry bearing Savin: the latter of these our plate represents.<sup>b</sup> “The leaves and tops of Savin have a moderately strong smell of the disagreeable kind, and a hot, bitterish, acrid taste; they give out great part of their active matter to watery liquors, and the whole to rectified spirit. Distilled with water they yield a large quantity of essential oil.<sup>c</sup> Decoctions of the leaves, freed from the volatile principle by inspissation to the consistence of an extract, retain a considerable share of their pungency and warmth along with their bitterness, and have some degree of smell, but not resembling that of the plant itself. On inspissating the spirituous tincture, there remains an extract, consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black resinous, tenacious, less pungent, and subastringent.” ||

Savin is a powerful and active medicine, and has been long reputed the most efficacious in the *Materia Medica*, for producing a determination to the uterus, and thereby proving emmenagogue;<sup>d</sup> it heats and stimulates the whole system very considerably, and is said to promote the fluid secretions.

<sup>a</sup> Cultivated in 1562. Turn. herb. part 2. fol. 124. *Aiton's Hort. Kew.*

<sup>b</sup> For the male inflorescence of this genus, see the next plate, viz. n. 95.

<sup>c</sup> From thirty-two ounces Hoffman obtained five ounces of this essential oil, in which the whole virtue of the plant seems to reside.

<sup>d</sup> Bergius states its *virtus* to be emmenagoga, abortiens, diuretica, sanguinem movens. *Mat. Med.* p. 314. || Lewis *Mat. Med.*

The power which this plant possesses in opening uterine obstructions is considered to be so great, that we are told it has been frequently employed, and with too much success, for purposes the most infamous and unnatural.<sup>e</sup> It seems probable however that its effects in this way have been somewhat over rated, as it is found very frequently to fail as an emmenagogue, though this, in some measure, may be ascribed to the smallness of the dose in which it has been usually prescribed by physicians; for Dr. Cullen observes, “ that  
 “ Savin is a very acrid and heating substance, and I have been often  
 “ upon account of these qualities, prevented from employing it in  
 “ the quantity perhaps necessary to render it emmenagogue. I must  
 “ own however that it shows a more powerful determination to the  
 “ uterus than any other plant I have employed; but I have been  
 “ frequently disappointed in this, and its heating qualities always  
 “ require a great deal of caution.”<sup>f</sup> Dr. Home appears to have had very great success with this medicine, for in five cases of amenorrhœa which occurred at the Royal Infirmary at Edinburgh, four were cured by the Sabina,<sup>g</sup> which he gave in powder from a scruple to a dram twice a day. He says it is well suited to the debile, but improper in plethoric habits, and therefore orders repeated bleedings before its exhibition. Externally Savin is recommended as an escharotic to foul ulcers, syphilitic, warts, &c.<sup>h</sup>

<sup>e</sup> Hinc in uterino fluxu ciendo adeo potens, qua vi abusæ subinde feruntur communi fere effato, a Galeno inde tempore deducto, scelestæ matres ad abortum excitandum, sed haud absque proprio vitæ periculo vel ante partum vel mox post istum. (Storch *Herbamenb.* p. 220.) Suspectæ huic naturæ subscripsit judicium Facultatis medicæ Lipsiensis. (Ammann. *med. crit.* p. 42. See Murray *App. Med.* vol. i. p. 42. And Haller l. c.

<sup>f</sup> *M. M.* vol. ii. p. 366. <sup>g</sup> Clinical Experiments, p. 387. <sup>h</sup> Fabre, *Mal. vener.* T. i. p. 365.

JUNIPERUS COMMUNIS.





*Juniperus communis*

Published by Dr Woodville July 1. 1791.



## JUNIPERUS COMMUNIS. COMMON JUNIPER.



*SYNONYMA.* Juniperus. *Pharm. Lond. & Edinb.* Juniperus vulgaris fruticosa. *Baub. Pin. p. 488.* Juniperus vulgaris. *Park. Theat. p. 1028.* Gerard. *Emac. p. 1372.* *Raii Hist. p. 1411.* *Synop. p. 44.* Juniperus foliis convexo-concavis, aristatis, baccis alaribus, sessilibus. *Hal. Stirp. Helv. n. 1661.* *Hudson. Flor. Ang. p. 436.* *Withering. Bot. Arrang. p. 1129.* *Mill. illust. ic.*

♂ Juniperus foliis ternis patentibus, acutioribus, ramis erectioribus, bacca longioribus. *Mill. Dict.* Swedish Juniper.

♀ Juniperus minor montana, folio latiore, fructuque longiore. *Baub. Pin. 489.* Procumbent Juniper.

*Class* Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant. 1134.*

*Eff. Gen. Ch.* *MASC. Amenti* Calyx squamæ. *Cor. 0.* *Stam. 3.*

*FEM. Cal.* 3-partitus. *Petala 3.* *Styli 3.* *Bacca 3-sperma,*  
tribus tuberculis calycis inæqualis.

*Sp. Ch.* J. foliis ternis patentibus mucronatis bacca longioribus.

THIS species usually rises much higher than the Sabina; it is covered with brownish bark, and divides into many branches: the leaves are very numerous, long, narrow, pointed, of a deep green colour, and stand in ternaries: the flowers are male and female on different plants, and answer to the description of those which we have given of Juniperus Sabina:<sup>a</sup> the berries continue two years upon the tree before they become perfectly ripe, when they are of a blackish colour, round, filled with a brownish pulp, and each contain

<sup>a</sup> Of the Sabina we ought to have remarked, that the essential oil and the watery extract, are kept in the shops, and that it is an ingredient in the pulv. e myrrha compositus.



three irregular hard seeds. It grows in several heathy parts of England, and flowers in May.

Juniper is supposed to be the *ἀγρευθος* of the ancients,|| who distinguished it into two kinds.<sup>b</sup> Both the tops and berries of this plant are directed for use in our Pharmacopœias, but the latter are usually preferred, and are brought to us chiefly from Holland and Italy. “ They have a moderately strong not disagreeable smell, and a warm pungent sweetish taste, which if they are long chewed or previously well bruised, is followed by a considerable bitterness. The sweetness appears to reside in the juice or soft pulpy part of the berry; the bitterness, in the seeds; and the aromatic flavour, in oily vesicles, spread throughout the substance both of the pulp and the seeds, and distinguishable even by the eye. The fresh berries yield, on expression, a rich sweet honey-like aromatic juice: if previously powdered so as to thoroughly break the seeds, which is not done without great difficulty, the juice proves tart and bitter. The same differences are observable also in tinctures and infusions made from the dry berries, according as the berry is taken entire or thoroughly bruised. They give out nearly all their virtue both to water and rectified spirit. Distilled with water they yield a yellowish essential oil, very subtile and pungent, in smell greatly resembling the berries, in quantity (if they have been sufficiently bruised) about one ounce from forty: the decoction, inspissated to the consistence of a rob or extract, has a pleasant, balsamic, sweet taste, with a greater or less degree of bitterness. A part of the flavour of the berries arises also in distillation with rectified spirit: the inspissated tincture consists of two distinct substances; one oily and sweet; the other tenacious, resinous, and aromatic.”<sup>c</sup>

These berries are chiefly used for their diuretic effects; they are also considered to be stomachic, carminative, and diaphoretic.—

|| The odour of the Juniper-tree, though extremely fragrant, was, by Virgil, thought to be noxious:

Surgamus; solet esse gravis cantantibus umbra:  
Juniperi gravis umbra: nocent & frugibus umbræ.

ECL. x. v. 75.

<sup>b</sup> See *Pliny. Lib. xvi. cap. 25.* Gum Sandrach, known also by the name of pounce, is the product of this species of Juniper: it exudes through the crevices of the bark, or the perforations made by insects.

<sup>c</sup> *Lewis, Mat. Med. p. 362.*

Of

Of the efficacy of Juniper berries in many hydropical affections, we have various relations by physicians of great authority, as Du Verney, Hoffman, Boerhaave, and his illustrious commentator, Baron Van Swieten, &c. Authors however seem not to be perfectly agreed which preparation of the Juniper is most efficacious, many prefer the rob or inspissated decoction, but Dr. Cullen observes,\* that this is an inert medicine, alleging that the essential oil must be almost entirely dissipated by the boiling; for to this oil, which is much the same as that of turpentine, only of a more agreeable odour, he thinks all the virtues ascribed to the different parts of Juniper are to be referred. Hoffman, on the contrary, strongly recommends the rob, and declares it to be of great use in debility of the stomach and intestines; and he experienced it to be particularly serviceable to such old people as are subject to these disorders, or labour under a difficulty with regard to the urinary excretion; from hence it appears, that the berries still retain medicinal powers, though deprived of the stimulating effects of the essential oil.<sup>d</sup> But as the Juniper is now seldom if ever relied upon for the cure of dropsies, and only called to the aid of more powerful remedies, it is justly observed by a modern author, that “perhaps one of the best forms under which the berries can be used is that of a simple infusion. This either by itself, or with the addition of a little gin, is a very useful drink for hydropic patients.”<sup>e</sup> Medical writers have also spoken of the utility of Juniper in nephritic cases, uterine obstructions, scorbutic affections, and some cutaneous diseases, and in the two last mentioned complaints, the wood and tops of the plant are said to have been employed with more advantage than the berries.<sup>f</sup>

We are told by Linnæus,<sup>g</sup> that the Laplanders drink infusions of the Juniper berries as we do tea and coffee, and that the Swedes pre-

\* *M. M. vol. ii. p. 187.*

<sup>d</sup> Van Swieten prescribed the following formula: *Rx. Rob. Bacc. Junip. ℥ii. dilue in aquæ Junip. ℔ii. add. spirit. bacc. Junip. ℥ii. Quandoque spiritus nitri dulcis ℥ss ad sitim sedandam additur. Comment. in Boerb. aph. T. 4. p. 258.* Of this mixture one or two ounces were given every three hours.

<sup>e</sup> Duncan *New Ed. Dispens. p. 214.*

<sup>f</sup> Bergius says, “*Virtus: ligni & summitat. diuretica, sudorifera, mundificans. Bacca diuretica, nutriens, diaphoretica.*” *M. M. p. 810.*

<sup>g</sup> Flor. Lapp. p. 301. They are likewise known to afford a pleasant wine. See Du Hamel, *Arbres, T. i. p. 325.*

pare

pare a beer from them, in great estimation for its diuretic and anti-scorbutic qualities. Our Pharmacopœias direct the essential oil and a spirituous distillation of the Juniper berries, to be kept in the shops: the former, in doses of two or three drops, is found to be an active and stimulating medicine; the latter contains this oil, and that of some other aromatic seeds united to the spirit, and therefore differs not considerably from the genuine geneva imported from Holland; but there is great reason to believe, that the gin usually sold here is frequently nothing but the common fumentacious spirit, imbued with turpentine, or other materials to give it a flavour.

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VALERIANA OFFICINALIS.

OFFICINAL VALERIAN.

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*SYNONYMA.* Valeriana sylvestris. *Pharm. Lond. & Edinb.*  
 Valeriana sylvestris major. *Baub. Fin. p. 164. Gerard. Emac. p.*  
*1075. Park. Theat. p. 122. Raii Hist. p. 388. Synop. p. 200.*  
 Valeriana foliis pinnatis, pinnis dentatis. *Hal. Hist. Stirp. Helv. n.*  
*210. Valeriana officinalis. Hudson. Flor. Ang. p. 12. Withering.*  
*Bot. Arr. p. 36. Flor. Dan. p. 570.*

α Foliis angustioribus.

*Class* Triandria. *Ord.* Monogynia. *Lin. Gen. Plant. 44.*

*Eff. Gen. Ch.* Cal: 0. Cor. 1-petala, basi hinc gibba, supera. *Sem. 1.*

*Sp. Ch.* V. floribus triandris, foliis omnibus pinnatis.

THE root is perennial, consisting of a great number of simple fibres, which unite at their origin:—the stalk is upright, smooth, channelled, round, branched, and rises from two to four feet in height: the leaves on the stem are placed in pairs upon short broad sheathes; they are composed of several lance-shaped, partially dentated, veined, smooth pinnæ, with an odd one at the end, which is  
 the





*Valeriana officinalis*

Published by D<sup>r</sup> Woodville Aug<sup>st</sup> 1. 1791.



the largest: the radical leaves are larger, stand upon long footstalks, and the pinnae are elliptical, and deeply serrated: the floral leaves are spear-shaped and pointed: the flowers are small, of a white or purplish colour, and terminate the stem and branches in large bunches: there is no calyx, or only a small narrow rim: the corolla consists of a narrow tube, somewhat swelled on the under side, and divided at the limb into five obtuse segments: the three filaments are tapering, longer than the corolla, and furnished with round antheræ: the germen is placed beneath the corolla, and supports a slender style, shorter than the filaments, and terminated by a thick bearded stigma: the capsule is crowned with a radiated feather, and contains one seed of an oblong shape. It flowers in June, and commonly grows about hedges and woods.

The narrower-leaved variety of this species of Valerian, which does not exceed two feet in height, and affects dry heaths and high pastures, is justly in more repute than the other; its roots manifest stronger sensible qualities, and consequently possess more medicinal power; their smell is strong, and has been compared to that of a mixture of aromatics with fetids; their taste unpleasantly warm, bitterish, and subacid. “The powdered root, infused in water or digested in rectified spirit, impregnates both menstrua strongly with its smell and taste. Water distilled from it smells considerably of the root, but no essential oil separates, though several pounds be submitted to the operation at once.”†

Valerian is supposed to be the  $\phi^s$  of Dioscorides and Galen,<sup>a</sup> by whom it is mentioned as an aromatic and diuretic: it was first brought into estimation in convulsive affections by Fabius Columna,<sup>b</sup> who relates that he cured himself of an epilepsy by the root of this plant; we are told however, that Columna suffered a relapse of the disorder, and no further accounts of the efficacy of Valerian in epilepsy followed till those published by Dominicus Panarolus<sup>c</sup> fifty years afterwards,

† *Lewis, M. M.*

<sup>a</sup> Græcis  $\phi^s$  esse credo, a  $\phi^s$  abominantis: olet enim radix selinum quid, non tamen sine grato odore nardi *Hoff.* “This smell is highly delightful to cats; rats are also said to be equally fond of these roots, and that rat-catchers employ them to draw the rats together.” *Withering. l. c.*

<sup>b</sup> *Phytobasanos Neapol. 1592. p. 97.*

<sup>c</sup> *Iatrologiſm. s. medicin. hiſt. pentac. quinque Rom. 1643. Pentec. i. Obſ. 33. p. 20.*



in which three cases of its success are given. To these may be added many other instances of the good effects of Valerian root in this disease, since published by Cruger,<sup>d</sup> Schuchmann,<sup>e</sup> Riverius,<sup>f</sup> Sylvius,<sup>g</sup> Marchant,<sup>h</sup> Chomel,<sup>i</sup> Sauvages,<sup>k</sup> Tissot,<sup>l</sup> and others.

The advantages said to be derived from this root in epilepsy caused it to be tried in several other complaints termed nervous, particularly those produced by increased mobility and irritability of the nervous system, in which it has been found highly serviceable.<sup>m</sup> Bergius<sup>n</sup> states its *virtus* to be antispasmodic, diaphoretic, emmenagogue, diuretic, anthelminthic.\* Under the head *usus* he enumerates Epilepsia, Convulsiones, Hysteria, Hemisrania,<sup>o</sup> Visus hebetudo. Dr. Cullen says, “ its antispasmodic powers are very well established, and I trust to many of the reports that have been given of its efficacy; and if it has sometimes failed, I have just now accounted for it,<sup>p</sup> adding only this, that it seems to me, in almost all cases, it should be given in larger doses than is commonly done. On this footing, I have frequently found it useful in epileptic, hysterical, and other spasmodic affections.”<sup>q</sup> It is said however, that in some cases of epilepsy at the Edinburgh Dispensary, it was given to the extent of two ounces a day without effect;<sup>r</sup> and our own experience warrants us in saying,

<sup>d</sup> *Eph. Nat. Cur. Dec. 2. A. 7. Obs. 78.*

<sup>e</sup> *Eph. Nat. Cur. Dec. 2. A. 4. Obs. 44. p. 116. & App. ad Dec. 3. A. 3. p. 86.*

<sup>f</sup> *Prax. Med. Lib. i. p. 62.*

<sup>g</sup> *Opera, p. 427.*

<sup>h</sup> *Mém. de L'Acad. d. Sc. de Paris, 1706. p. 333.*

<sup>i</sup> *Pl. Usuelles. T. i. p. 228.*

<sup>k</sup> *Nosol. Method. T. iii. P. 2. p. 231. Ed. 8vo.*

<sup>l</sup> *Traité de l'épilepsie, p. 310.*

<sup>m</sup> Haller says, “ Ego certe ad hystericos morbos, nimiamque nervorum sensibilitatem, frequenter cum bono eventu hac radice usus sum; et in ipsa epilepsia, non malo successu. *Stirp. Helv. n. 210.* ”

<sup>n</sup> *Mat. Med. p. 30.*

\* He says, “ Emeticam illam nunquam vidi, nec laxantem.” The latter quality is however very generally ascribed to it by medical writers.

<sup>o</sup> Fordyce commends it highly in this disease, *De Hemisrania, p. 91.* Whytt, who joined it with manna, experienced its utility in epilepsy, *On Nerv. Dis. p. 513.* Joined with guaiacum, Morgan found it useful in resolving glandular or strumous humours. *Phil. princ. p. 424.*

<sup>p</sup> From the disease depending upon different causes, and from the root being frequently employed in an improper condition.

<sup>q</sup> *Mat. Med. vol. ii. p. 372.*

<sup>r</sup> *New Ed. Dispens. by Dr. Duncan, p. 300.*





*Marrubium vulgare*

Engraved by D<sup>r</sup> Woodville Aug<sup>r</sup> 1. 1791



that it will be seldom found to answer the expectations of the prescriber. The root, in substance, is most effectual, and is usually given in powder from a scruple to a dram: its unpleasant flavour may be concealed by a small addition of mace. A tincture of Valerian in proof spirit, and in volatile spirit, are ordered in the London Pharmacopœia.

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MARRUBRUM VULGARE.

COMMON WHITE  
HOREHOUND.

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*SYNONYMA.* Marrubium. *Pharm. Lond. & Edinb.* Marrubium album vulgare. *Bauh. Pin. p. 230.* *Park. Theat. p. 44.* Marrubium album. *Gerard Emac. p. 693.* *Raii Hist. p. 556.* *Synop. p. 239.* Marrubium dentibus calycinis densis, recurvis. *Hal. Stirp. Helv. n. 258.* *Hudson. Flor. Ang. p. 260.* *Withering. Bot. Arrang. p. 617.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant. 721.*

*Eff. Gen. Ch.* *Cal.* hypocateriformis, rigidus 10-striatus. *Corollæ* lab. sup. 2-fidum, lineare, rectum.

*Sp. Ch.* M. dentibus calycinis fetaceis uncinatis.

THE root is perennial, and furnished with numerous fibres: the stalks are upright, strong, square, hairy, or downy, and rise about a foot and a half in height: the leaves are roundish or oblong, deeply serrated, veined, wrinkled, hoary, and stand in pairs upon thick broad footstalks: the flowers are white, and produced in whorls at the footstalks of the leaves: the calyx is tubular, scored, and divided at the mouth into ten narrow segments, which are hooked at the end: the corolla is monopetalous, gaping, compressed, consisting of a cylindrical tube, opening at the mouth into two lips: the upper lip is narrow, and cloven or notched; the under lip is broader, reflected, and

and divided into three segments, the middlemost of which is broad, and slightly scolloped at the end; the lateral segments are spear-shaped and short: the filaments are two long and two short, supplied with simple antheræ, which are concealed in the tube: the germen is divided into four parts, from which issues a slender style, furnished with a cloven stigma: the seeds are four, of an oblong shape. It grows near the sides of roads and rubbish, and flowers in June.

“ The leaves of Horehound have a moderately strong smell of the aromatic kind, but not agreeable, which by drying is improved, and in keeping for some months is in great part dissipated: their taste is very bitter, penetrating, diffusive, and durable in the mouth.” “ The dry herb gives out its virtue both to watery and spirituous menstrea: on inspissating the watery infusion, the smell of the Horehound wholly exhales, and the remaining extract proves a strong and almost flavourless bitter: rectified spirit carries off likewise greatest part of the flavour of the herb, leaving an extract in less quantity than that obtained by water, and of more penetrating bitterness.”<sup>a</sup>

This plant is the *Περαστὸν* of the ancients, by whom it is greatly extolled for its efficacy in removing obstructions of the lungs and other viscera.<sup>b</sup> It has chiefly been employed in humoural asthmas,<sup>c</sup> obstinate coughs, and pulmonary consumptions;<sup>d</sup> instances are also mentioned of its successful use in scirrhus affections of the liver,<sup>e</sup> jaundice,<sup>f</sup> cachexies, and menstrual suppressions.<sup>g</sup>

That Horehound possesses some share of medicinal power may be inferred from its sensible qualities, \* but its virtues do not appear to

<sup>a</sup> *Lewis, M. M. p. 411.* <sup>b</sup> *Dioscorides, Lib. iii. c. 119.* See also *Pliny, Lib. xx. c. 22.*

<sup>c</sup> *Rhazes ad Mansor. 3. n. 42.* Particularly, infarctions of the lungs and difficulty of breathing from viscid mucous.

*Löfbecke, Arzneyk. p. 382. Lange, Miscell. verit. med. p. 57.*

<sup>d</sup> *Alex. Trallian. Lib. v. Vide Celsus, Lib. iii. cap. 22. Caelius Aurelianus, Morb. chron. Lib. ii. p. 423. De Haen Rat. Medend. P. iv. p. 252.* But he and Haller often found it fail; the latter says, *Ego quidem in morbis similibus cum difficili sputorum excreatione infusum aquosum utiliter dedi: & in phthisi satis profecta semel vidi utile fuisse, non autem in aliis exemplis: potius vero mihi movere videtur, quam reprimere. l. c.*

<sup>e</sup> *Zacutus Lusitanus, Prax. admir. Lib. 2. Obs 48. Chomel, Ujueil. T. i. p. 232.*

<sup>f</sup> *Forrest. Op. Lib. 19. Obs. 19. & 40. Borrellus, Hist. et Observ. Cent. iv. p. 14.*

\* Taken in considerable quantities it is said to loosen the body.







*Astragalus fragacantha*

Published by Dr. Woodville Aug<sup>st</sup> 1791.

be clearly ascertained,<sup>h</sup> and the character it formerly obtained is so far depreciated, that it is now rarely prescribed by physicians. A dram of the dry leaves in powder, or two or three ounces of the expressed juice, or an infusion of half a handful of the fresh leaves have been directed for a dose. This last mode is usually practised by the common people, with whom it is still a favourite remedy in coughs and asthma.<sup>i</sup>

<sup>h</sup> Bergius says, *Virtus* : tonica, emmenagoga, diuretica. *Ufus* : Cachexia, ob. mensium, Hysteria, Asthma pituitosum.

<sup>i</sup> "It has had the reputation of a pectoral : but in many trials, its virtues in that way have not been observed ; and in several cases it has been judged hurtful. For its use in Asthma and Phthisis, and for its power in resolving indurations of the liver, I consider the authorities of Forrestus, Zacutus Lusitanus, and Chomel, to be very insufficient ; and the events they have ascribed to it seem to be very improbable." *Cullen Mat. Med. vol. ii. p. 155.*

## ASTRAGALUS TRAGACANTHA.

## GOAT'S THORN MILK VETCH.

Ex hac planta exudat Gummi Tragacantha. *Pharm. Lond. & Edinb.*

*SYNONYMA.* Astragalus aculeatus fruticosus Massiliensis. *Pluk. Alm. p. 60.* Tragacantha. *Baub. Pin. p. 388.* Tragacantha, five spina hirci. *Gerard Emac. p. 1328.* Tragacantha vera. *Park. Theat. p. 995.* Tragacantha Massiliensis. *J. Baub. Hist. i. p. 407.* *Raii Hist. p. 933.* *Du Hamel, Traité des Arbres, t. ii. p. 343.* *Tournefort, Voyage du Levant, t. i. p. 21.*

*Class* Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant.* 892.

*Eff. Gen. Ch.* Legumen biloculare, gibbum.

*Sp. Ch.* A. caudice arborecente, petiolis spinescens.

THE root is perennial, long, tapering, and fibrous : the stems are shrubby, short, thick, branched, procumbent, clothed with brown

rigid fibres, and beset with long sharp spines: the leaves are pinnated, consisting of about eight pairs of small oblong pinnulæ, or leaflets, which are attached to a strong spinous persistent footstalk, or midrib: the flowers are large, of a pale yellow colour, and terminate the branches in close clusters: the calyx is tubular and divided at the rim into five sharp teeth: the corolla is of the papilionaceous kind, consisting of a *vexillum* or upper petal, which is longer than the others, straight, blunt, reflected at the sides, and notched at the end; two *alæ* or lateral petals, which are of an oblong form, and a *carina* or keel-shaped under-petal: the filaments are ten, nine of which are united, and one separate: the antheræ are small and round: the germen is long and roundish: the style tapering, and furnished with a blunt stigma: the seeds are kidney-shaped, and contained in a two-celled pod. It flowers from May till July.

This plant was cultivated in England in the time of Parkinson, (1640): it is a native of Asiatic Turkey, and the Southern parts of Europe, particularly of Italy, Sicily, and Crete. Tournefort discovered it growing plentifully about Mount Ida,<sup>a</sup> where he examined the plant in the month of July, when both the bark and wood were found distended with gum Tragacanth, which by the intensity of the sun's heat forces its way through the bark, and concretes into irregular lumps, or long vermicular pieces, bent into a variety of shapes, and larger or smaller in proportion to its quantity, and the size of the wounds from whence it issues. This gum is imported here chiefly from Turkey: it varies in its colour; but that most esteemed is white, semitransparent, dry, yet somewhat soft to the touch.

M. de la Billardiére's late account <sup>b</sup> of the production of this gum differs in some respects from that of Tournefort's. He says, that he visited Mount Lebanon in August, 1766, the season when the gum Tragacanth is collected: he then found the species of *Astragalus* which afforded it, to be different from that figured and described by

<sup>a</sup> *Voyage, T. i. p. 21.*

<sup>b</sup> See Description d'une nouvelle espece d'astragale, qui produit au Liban la gomme adragant, *Hist. de l'Acad. R. des Scien. du 16 Dec. 1788. et Rozier, Observ. sur la physique, pour Janvier, 1790.*



Tournefort, and consequently not the *Tragacantha* of Linnæus.\* He also contradicts the opinion of Tournefort, who attributes the flowing of the gum to the contraction of the fibres of the bark, occasioned by the intensity of the solar heat; observing that it is only during the night, or when the sun is obscured by clouds, that the gum issues from the plant, and that the same has been remarked at Crete.

“ Gum *Tragacanth* differs from all other known gums, in giving a thick consistence to a much larger quantity of water;\* and in being much more difficultly dissoluble, or rather dissolving only imperfectly.<sup>d</sup> Put into water, it slowly imbibes a great quantity of the liquid, swells into a large volume, and forms a soft but not fluid mucilage: if more water be added, a fluid solution may be obtained by agitation, but the liquor looks turbid and wheyish; and on standing the mucilage subsides, the limpid water on the surface retaining little of the gum:”† nor does the mixture of gum arabic promote their union.

The demulcent qualities of this gum are to be considered as similar to those of gum arabic:° it is seldom given alone, but frequently in combination with more powerful medicines, especially in the form of troches, for which it is peculiarly well adapted. It gives name to an officinal powder, and is an ingredient in the compound powder of cerufs.

° He makes the following distinctions: The stem of the Cretan *Astragalus* is blackish, that of Libanon is yellow; the leaves of the first are downy, of the second they are smooth. The flowers of one are red, those of the other are of a pale yellow. From hence he infers that there are various species of *Astragalus* which produce gum *tragacanth*.

\* Multo fortius est hoc gummi, quam *G. arabicum*, sc. ut 1 ad 24. Etenim dum *G. Tragac.* scrup. 8 aquæ puræ libr. 2 in consistentiam Syrupi redigunt, requiruntur *G. Arab.* unc. 8 ad eundem effectum præstandum. *Berg. M. M. p. 622.*

<sup>d</sup> Ruttý asserts, that in five or six hours it will dissolve in cold water. *Observ. on the Lond. & Edin. Dispens. p. 179.*  
† *Lewis's M. M.*

° See p. 189. *Bergius* says, *Virtus*: demulcens, obtundens, incrassans. *Ufus*: Dysenteria, Diarrhœa, Stranguria. *l. c. p. 621.*

## PANAX QUINQUEFOLIUM.

## PANAX QUINQUEFOLIUM.

## GINSENG.

*SYNONYMA.* Ginseng. *Pharm. Lond. & Edinb. Raii Hist.* p. 1338. Aureliana canadensis. *Lafiteau in Memoires concernant la precieuse plante de Ginseng. Paris, 1718. Et Hist. de L'Acad.* 1718. p. 42. *Catesby's Car.* 3. p. 16. t. 16. *Breyn. in Prod. rar. pl.* 2. p. 35. *Fig. ad.* p. 52. *Araliastrum foliis ternis quinquepartitis* Ginseng f. *Ninfin officinarum. Ebret. tabul. a Trew, t. 6. fig. 1.* Gin-seng Chinenfibus. *Jartoux Phil. Transf. vol. xxviii. p. 237. Conf. Des lettres edifiantes & curieuses, tom. x. p. 172. Araliastrum, quinquefolii folio, majus Ninfin<sup>a</sup> vocatum. Vall. Sex. 43.*

*Class* Polygamia. *Ord.* Dioecia. *Lin. Gen. Plant.* 1166.

*Eff. Gen. Ch.* HERMAPHROD. Umbella. *Cal.* 5-dentatus, superus. *Cor.* 5-petala. *Stam.* 5. *Styli* 2. *Bacca* disperma.

*MASC.* Umbella. *Cal.* integer. *Cor.* 5-petala. *Stam.* 5.

*Sp. Ch.* P. foliis ternis quinatis.

THE root is perennial, small, wrinkled, branched, of a pale yellowish colour, and sends off many short slender fibres: the stalk is erect, smooth, round, simple, tinged of a deep purple colour, and above a foot in height: the leaves arise with the flower stem from a thick joint at the extremity of the stalk; they are generally three, but sometimes more, of the digitated kind, each dividing into five simple leaves, which are of an irregular oval shape, serrated, veined, pointed, smooth, of a deep green colour above, and stand upon short footstalks proceeding from a common petiolus, which is long, round, and almost

<sup>a</sup> The plant formerly known by this name is now understood to be the Sion Ninsi, of Linnæus.

erect:





P. C.

*Panax quinquefolium**Published by D<sup>r</sup> Woodville Aug<sup>r</sup> 1. 1791*





erect: the flowers are white, produced in a roundish terminal umbel, and are hermaphrodite or male on separate plants: the former, which we have figured, stand in close simple umbels: the involucre consists of several small, tapering, pointed, permanent leaves; the proper calyx is tubular, and divided at the rim into five small teeth: the corolla consists of five petals, which are small, oval, equal, and reflexed: the filaments are five, short, and furnished with simple antheræ: the germen is roundish, placed below the corolla, and supports two short erect styles, crowned by simple stigmata: the fruit is an umbilicated two-celled berry, each containing a single irregularly heart-shaped seed. The flowers appear in June.

Ginseng was formerly supposed to grow only in Chinese Tartary, affecting mountainous situations, shaded by close woods; but it has now been long known that this plant is also a native of North America, whence M. Sarrafin transmitted specimens of it to Paris in the year 1704;<sup>b</sup> and the Ginseng since discovered in Canada, Pennsylvania, and Virginia by Lafiteau,<sup>c</sup> Kalm,<sup>d</sup> Bartram,<sup>e</sup> and others, has been found to correspond exactly with the Tartarian species, and its roots are now regularly purchased by the Chinese, who consider them to be the same as those of eastern growth, which are known to undergo a certain preparation, whereby they assume an appearance somewhat different. For it is said that in China the roots are washed and soaked in a decoction of rice, or millet-feed, and afterwards exposed to the steam of the liquor, by which they acquire a greater firmness and clearness than in their natural state.\* The plant was first introduced into England in 1740 by that industrious naturalist Peter Collinson,<sup>f</sup> and our figure was drawn from a good specimen, growing in the Royal Botanic garden at Kew.

The dried root of Ginseng, as imported here, is scarcely the thickness of the little finger, about three or four inches long, frequently

<sup>b</sup> Sarrafin was correspondent of the Royal Academy of Sciences, in the history of which his account was published in 1718. See p. 44.

<sup>c</sup> L. c. <sup>d</sup> *Rosa til N. America*, t. iii. p. 334. <sup>e</sup> *Comm. Nor.* 1741. p. 361.

<sup>f</sup> See *Hort. Kew.*

\* The Chinese value these roots in some measure according to their figure, esteeming those very highly which are regularly forked, or have a fancied resemblance to the human form.

forked, transversely wrinkled, of a horny texture, and both internally and externally of a yellowish white colour. " To the taste it discovers a mucilaginous sweetness, approaching to that of liquorice, accompanied with some degree of bitterishness, and a slight aromatic warmth, with little or no smell. It is far sweeter and of a more grateful smell than the roots of fennel, to which it has by some been supposed similar; and differs likewise remarkably from those roots, in the nature and pharmaceutic properties of its active principles; the sweet matter of the Ginseng being preserved entire in the watery as well as the spirituous extract, whereas that of fennel roots is destroyed or dissipated in the inspissation of the watery tincture. The slight aromatic impregnation of the Ginseng is likewise in good measure retained in the watery extract, and perfectly in the spirituous."<sup>g</sup>

The Chinese ascribe extraordinary virtues to the root of Ginseng, and have long considered it as a sovereign remedy in almost all diseases to which they are liable, having no confidence in any medicine unless in combination with it. It is observed by Jartoux, that the most eminent Physicians in China have written volumes on the medicinal powers of this plant, asserting that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomitings, removes hysterical, hypochondriacal, and all nervous affections, and gives a vigorous tone of body, even in extreme old age.<sup>h</sup> These, and many other effects of this root, equally improbable and extravagant, are related by various authors, and Jartoux was so much biassed by this eastern prejudice in favour of Ginseng, that he seems to have given them full credit, and confirms them in some measure from his own experience.<sup>i</sup> But we know of no proofs of the

<sup>g</sup> Lewis, *M. M.* p. 325.

<sup>h</sup> L. c. See also Decker, (*Exercit. pract.* p. m. 670.)

<sup>i</sup> He says, " Nobody can imagine that the Chinese and Tartars would set so high a value upon this root, if it did not constantly produce a good effect."—" I observed the state of my pulse, and then took half of a root raw: in an hour after I found my pulse much fuller and quicker; I had an appetite, and found myself much more vigorous, and could bear labour much better and easier than before. But I did not rely on this trial alone, imagining that this alteration might proceed from the rest we had that day: but







*Veratrum album*

Published by D<sup>r</sup> Woodville Aug<sup>r</sup> 1 1791

the efficacy of Ginfeng in Europe, and from its sensible qualities we judge it to possess very little power as a medicine.<sup>k</sup> It is recommended in decoction, viz. a dram of the root to be long boiled in a sufficient quantity of water for one dose.

four days after, finding myself so fatigued and weary that I could scarce sit on horseback, a Mandarin who was in company with us perceiving it, gave me one of these roots: I took half of it immediately, and an hour after I was not the least sensible of any weariness. I have often made use of it since, and always with the same success. I have observed also, that the green leaves, and especially the fibrous parts of them chewed, would produce nearly the same effect." *Phil. Transf. vol. xxviii. p. 239.*

\* Dr. Cullen says, " We are told that the Chinese consider Ginfeng as a powerful aphrodisiac; but I have long neglected the authority of popular opinions, and this is one instance that has confirmed my judgment. I have known a gentleman, a little advanced in life, who chewed a quantity of this root every day for several years, but who acknowledged he never found his faculties in this way improved by it." *M. M. vol. ii. p. 161.*

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VERATRUM ALBUM. WHITE HELLEBORE,  
Or, VERATRUM.

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SYNONYMA. Helleborus albus. *Pharm. Lond. & Edinb.*  
*Gerard Emac. p. 440. Raii Hist. p. 168.* Helleborus Albus,  
flore subviridi. *Baub. Pin. p. 186.* Helleborus albus vulgaris.  
*Park. Theat. p. 217.* Veratrum flore subviridi. *Tournef. Inst.*  
*p. 272.* Veratrum spica paniculata, floribus maribus & feminis.  
*Hall. Stirp. Helv. n. 1204.* Veratrum album. *Jacq. Flor. Aust.*  
*v. iv. t. 335. Mill. Illustr. ic.*

Class Polygamia. Ord. Monoecia. *Lin. Gen. Plant. 1144.*

Eff. Gen. Ch. HERMAPHROD. Cal. 0. Cor. 6-petala. Stam. 6.  
Pist. 3. Caps. 3, polyspermæ.

Masc. Cal. 0. Cor. 6-petala. Stam. 6. Pist. rudimentum.

Sp. Ch. V. racemo supradecomposito, corollis erectis.

THE



THE root is perennial, about an inch thick, externally brown, internally white, and beset with many strong fibres: the stalk is thick, strong, round, upright, hairy, and usually rises four feet in height: the leaves are numerous, very large, oval, entire, ribbed, plaited, without footstalks, of a yellowish green colour, and surround the stem at its base: the flowers are both hermaphrodite and male, of a greenish colour, and appear from June to August, in very long branched terminal spikes: the hermaphrodite flowers are without calyces: the corolla consists of six petals, which are oblong, or lance-shaped, veined, persistent, of a pale green colour: the filaments are six, closely surrounding the germens, shorter than the corolla, and terminated by quadrangular antheræ: the germens are three in each flower, erect, oblong, ending in short hairy styles, which are crowned with flat spreading stigmata: the capsules are three, oblong, compressed, erect, two-celled, opening inwardly, and containing many oblong compressed membranous seeds. The male flowers differ from these only in wanting the germens.

This plant is a native of Italy, Switzerland, Austria, and Russia: its first cultivation in this country is ascribed to Gerard, and of course was previous to the year 1596.

The *ελληβορος λευκος* of the Greek writers is by many supposed to be our *Helleborus albus*; but this opinion, like many others respecting the identity of the ancient nomenclature of plants with that of the modern, seems drawn rather from the similarity of their effects upon the body, than from an agreement in their botanical descriptions. This will evidently appear upon comparing the plant here figured with the description given by Dioscorides:\* and yet Geoffroy says, “*Apud Dioscoridem hellebori albi descriptio, veratro albo nostro fatis apte convenit.*”<sup>a</sup>

\* “*Helleborus albus folia fert Plantaginis aut Betæ sylvestris similia, sed breviora, nigriora, & dorso rubescentia: caulem palmi altitudine, concavum; qui quidem tunicas quibus convolvitur abdicat cum arefcere incipit. Radices subjacent numerosæ, tenues ac fibratæ, ab exiguo & oblongo capitulo, ceu cæpa, exeuntes, eidemque annexæ. Nascitur in montosis & asperis,*” *Dioscorid. M. M. L. iv. c. 150.* This description of the plant, though imperfect, is the only one given by the ancients.

<sup>a</sup> *Mat. Med. vol. ii. p. 68.*

The *Ελληβορος μελας*, or famous Anticyran Hellebore,<sup>b</sup> is likewise thought to be the *Helleborus niger* of Linnæus, an account of which has been given at page 50; but the descriptions of the former by the ancients are so vague that their identity is equally doubtful;<sup>c</sup> the application therefore of what has formerly been said of the Hellebores of the Greeks to those known to us, can only be admitted but as a matter of probability.

Hippocrates frequently mentions Hellebore simply, or generically, by which we are told the white is to be understood, as he adds the word black or purging when the other species is meant; and as the purgative powers of *Veratrum* are known to be weaker than those of *helleborus niger*, the distinction is so far applicable to the effects now experienced of the roots of our Hellebores.

It appears from various instances, that not only the roots of white Hellebore but that every part of the plant is extremely acrid and poisonous, as its leaves and even seeds proved deleterious to different animals.<sup>d</sup> The dried root has no peculiar smell, but a durable nauseous acrid bitterish taste, burning the mouth and fauces; when powdered and applied to issues or ulcers it produces griping and purging; if snuffed up the nose it proves a violent sternutatory. Gesner made an infusion of half an ounce of this root with two ounces of water, of this he took two drams, which produced great heat about the scapulæ, and in the face and head, as well as the tongue

<sup>b</sup> “*Naviget Anticyram.*” —

*Danda est hellebori multo pars maxima avaris :*

*Necio, an Anticyram ratio illis destinet omnem.*

HOR. SAT. Lib. ii. v. 82.

It is said that both the white and black hellebore grew at Anticyra, but the latter was accounted safer, and therefore more commonly employed. *Pausanias, Lib. x. p. 623.*

<sup>c</sup> Though Tournefort says, “*Nous connûmes deux Herboristes à Pruse, l'un Emir & l'autre Armenien, qui passoient pour de grands Docteurs. Ils nous fournirent des racines du veritable Ellebore noir des anciens, autant que nous voulumes pour en faire l'extrait. C'est la même espece que celle des Anticyres & des côtes de la Mer Noir.*” See his account of Mount Olympus. *Voyage du Levant.* But his description of the plant differs widely from that of our *Helleborus niger*.

<sup>d</sup> See Pallas, *Russ. Reise, vol. i. p. 49.* Kalm's *N. Amer. tom. iii. p. 48.* Gunner, *Fl. d'Norveg. P. ii. p. 2.* For the poisonous effects of the roots, when applied to wounds of different animals, Vide *Phil. Transf. vol. xlvii. p. 82.*



and throat, followed with singultus, which continued till vomiting was excited.<sup>c</sup> Bergius also experienced very distressing symptoms merely by tasting this infusion.<sup>f</sup> The root, taken in large doses, discovers such acrimony, and operates upwards and downwards with such violence that blood is usually discharged :<sup>g</sup> it likewise acts very powerfully upon the nervous system, producing great anxiety, tremors, vertigo, syncope, loss of voice, interrupted respiration, sinking of the pulse, convulsions, spasms, cold sweats, &c.<sup>h</sup> Upon opening those who have died by the effects of this poison, the stomach discovered marks of inflammation, with corrosions of its interior coat, and the lungs have been found inflamed, and their vessels much distended with dark blood.<sup>i</sup>

The ancients, though sufficiently acquainted with the virulency of their white Hellebore, were not deterred from employing it internally in several diseases, especially those of a chronic and obstinate kind, as mania, melancholia, hydrops, elephantiasis, epilepsia, vitiligo, lepra, rabies canina, &c. they considered it the safer when it excited vomiting, and Hippocrates wished this to be its first effect. To those of weak constitutions, as women, children, old men, and those labouring under pulmonary complaints, its exhibition was deemed unsafe; and even when given to the robust it was thought necessary to moderate its violence by different combinations and preparations; for it was frequently observed to effect a cure not only by its immediate action upon the primæ viæ, but when no sensible evacuations was promoted by its use.<sup>k</sup>

<sup>c</sup> *Epist. Med.* p. 69.

<sup>f</sup> *M. M.* p. 819. <sup>g</sup> Etmuller. *Oper.* tom. ii. P. 2. p. 435. <sup>h</sup> Wepfer, *de Cicut.* p. 48. Lorry *de Melanch.* ii. p. 313. Borrich. *Act. Haf.* vol. vi. p. 145. Albert. *Jurisprud. Med.* vol. vi. p. 718. Bressl. *Samml.* 1724. P. 2. p. 269. p. 537. *Act. Berol. Dec.* 2. vol. 6. *Misc. Nat. Cur. Dec.* 2. *Ann.* 2. p. 239. <sup>i</sup> *Act. Berol. cit. Misc. Nat. Cur. cit.*

Bergius says, “ Ego vix a memet impetrare potero, ut radicis, ita intense venenatæ, usum internum cuiquam suafurus sim, nisi summa adhibita circumspicientia; etenim constat, eam, in satis parca dosi propinatam, sæpe horrenda symptomata excitasse, ut sitim, cardialgiam, tormina, singultum, suffocationes, convulsiones, tremores, inflammationem primarum viarum, lipothymias, sudorem frigidum, immo & mortem.” *l. c.*

<sup>k</sup> Hippocr. *περί Ελλεβορισμα* in *Oper.* ed. Lind. tom. i. p. 610. Et *Aphorism. Sect. iv. Aph.* 13—16.

Similar



Similar observations have been made of Veratrum by authors of later times: Mayerne<sup>1</sup> gave from two to three grains of an extract of this root with considerable advantage in maniacal cases, where no remarkable evacuation took place; and Con. Gefner,<sup>m</sup> who investigated the qualities of Veratrum by repeated experiments, and whose encomiums on its efficacy seemed for a while to restore it to the ancient character of Hellebore, expressly declares, that he did not give it as an evacuant, but to produce the more gradual effects of those medicines termed alteratives. Gefner's account of Veratrum was followed by those of several other authors,<sup>n</sup> in which it is said to have been serviceable in various chronic diseases. But the fullest trial which seems to have been lately made of the efficacy of Veratrum is by Greding,<sup>o</sup> who employed it in a great number of cases, (twenty-eight) of the maniacal and melancholic kind; the majority of these, as might be expected, derived no permanent benefit; several however were relieved, and five completely cured by this medicine. It was the bark of the root, collected in the spring, which he gave in powder, beginning with one grain: this dose was gradually increased according to its effects. With some patients one or two grains excited nausea and vomiting, but generally eight grains were required to produce this effect, though in a few instances a scruple, and even more, was given. We may also remark, that he sometimes used the extract prepared after Stoerck's manner.—In almost every case which he relates, the medicine acted more or less upon all the excretions:

<sup>1</sup> Prax. Med. Lib. i. c. 7. p. 69. sq.

<sup>m</sup> He says, "non ad purgandum, sed ad referandos meatus & crassos humores attenuandum, eosque a centro & interioribus corporis ad superficiem & vias excretionum variarum educendum." Adding, "recreat & roberat, & hilariorem facit, & acuit ingenium: quod in me & aliis sæpissime expertus scribo." Had Gefner lived long enough, he had still more to say on this subject. "Ego, si vixero, in Ellebori historia multa proferam, quæ medici admirentur." l. c.

<sup>n</sup> Hannemann, Quercetanus, Screta, Wepfer, Muralto, Linder.

<sup>o</sup> Vermischte Med. u. chirurg. Schriften. Altenb. 1781. to p. 30.

Wendt relates a case of mania, brought on by taking pepper and spirits of wine as a remedy for the ague; the disease continued thirty-three weeks, when it was said to have been cured by a decoction of white hellebore; but as copious and repeated bleedings, with other means, were employed, the cure cannot wholly be ascribed to the hellebore. See Agassiz. *Diff. de therapia maniacæ*. Erl. 1785. p. 37.

vomiting and purging were very generally produced, and the matter thrown off the stomach was constantly mixed with bile; a florid redness frequently appeared on the face, and various cutaneous efflorescences upon the body; and, in some pleuretic, symptoms with fever supervened, so as to require bleeding, nor were the more alarming affections of spasms and convulsions unfrequent. Critical evacuations, we are told, were often very evident, many sweated profusely, in some the urine was considerably increased, in others the saliva and the mucous discharges: also uterine obstructions, of long continuance, were often removed by this drug.

Veratrum has likewise been found useful in epilepsy, and other convulsive complaints,<sup>p</sup> but the diseases in which its efficacy seems least equivocal, are those of the skin,<sup>q</sup> as scabies and different prurient eruptions, herpes, morbus pediculofus, lepra, scrophula, &c. and in many of these it has been successfully employed both internally and externally.

As a powerful stimulant, and irritating medicine, its use has been resorted to only in desperate cases, and then it is first to be tried in very small doses, in a diluted state, and to be gradually increased, according to the effects.

<sup>p</sup> Greding, *l. c.* See also Smyth in *Medical Communications*, vol. i. p. 207.

<sup>q</sup> Its success in these complaints is mentioned both by the ancient and modern writers. Smyth relates three cases. See *l. c.*

The Veratrum nigrum of Lin. or Helleborus albus flore atro-rubente of C. Bauh. is said to produce the same effects as the Veratrum album. See Lorry, *de melanch.* tom. ii. p. 289. & Linnæus, *Amoen. Acad.* vol. ix. p. 261. Helleborus is supposed to be derived ἀπο τῆ ἐλεῖν βορᾶ quod esu perimat. Veratrum dicitur quod mentem vertat, or, à verare i. e. vera loqui. *V. C. Bauh. l. c.*

LILIUM CANDIDUM.







*Lilium candidum*

Published by D<sup>r</sup> Woodville Sep<sup>r</sup> 1. 1791

## LILIUM CANDIDUM.

## COMMON WHITE LILY.

*SYNONYMA.* *Lilium album.* *Pharm. Edinb.* *Gerard Emac.*  
*p.* 190. *Raii Hist. p.* 1109. *Lilium album vulgare.* *Park. Parad.*  
*39.* *J. Baub. Hist. ii. p.* 685.

α *Lilium album flore erecto et vulgare.* *Baub. Pin. p.* 76.

β *Lilium album floribus dependentibus five peregrinum.* *Baub. Pin.*  
*p.* 76. *Nodding-Flowered White Lily.*

*Class* Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 410.

*Eff. Gen. Ch.* *Cor.* 6-petala, campanulata: *linea* longitudinali nec-  
*tarifera.* *Caps.* valvulis pilo cancellato connexis.

*Sp. Ch.* *L. foliis sparsis, corollis campanulatis: intus glabris.*

THE root is a large bulb, from which proceed several succulent fibres: the stem is firm, round, upright, simple, and usually rises about three feet in height: the leaves are numerous, long, narrow pointed, smooth, without footstalks, and irregularly scattered over the stem: the flowers are large, white, and terminate the stem in clusters upon short peduncles: it has no calyx: the corolla is bell-shaped, consisting of six petals, which within are of a beautiful shining white, but without ridged, and of a less luminous whiteness: the filaments are six, tapering, much shorter than the corolla, upon which are placed transversely large orange-coloured antheræ: the style is longer than the filaments, and furnished with a fleshy triangular stigma: the germen becomes an oblong capsule, marked with six furrows, and divided into three cells, which contain many flattish seeds of a semi-circular form. It flowers in June and July.

This Lily, which now very commonly decorates the borders of our gardens with the beautiful whiteness<sup>a</sup> of its flowers, is a native of the Levant, and has been cultivated here since the time of Gerard. The flowers of this plant have a pleasant sweet smell, and were formerly used for medicinal purposes;<sup>b</sup> a watery distillation of them was employed as a cosmetic, and the oleum liliorum was supposed to possess anodyne and nervine powers; but the odorous matter of these flowers is of a very volatile kind, being totally dissipated in drying, and entirely carried off in evaporation by rectified spirit as well as water; and though both menstrua become impregnated with their agreeable odour by infusion or distillation, yet no essential oil could be obtained from several pounds of the flowers. It is therefore the roots only which are now directed by the Edinburgh College: they are extremely mucilaginous, and are chiefly used, boiled with milk or water, in emollient and suppurating cataplasms: it is probable however, that the poultices formed of bread or farina, possess every advantage of those prepared of Lily root.

*Lilium* ἂ λειριον vel λιβριον. By the Greeks it is called κρινον.

<sup>a</sup> Alluding to this, Ovid, in the luxuriancy of his imagination, ascribes its origin to the milk of Juno.

“ Dum puer Alcides Divæ vagus ubera fuxit  
 “ Junonis, dulci pressa sapore fuit;  
 “ Ambrosiumque alto lac distillavit Olympo  
 “ In terras fusum Lilia pulchra dedit.”

Pliny says, *Lilium Rosæ* nobilitate proximum est; and both these flowers have furnished their share of metaphor to ancient and modern poets.

Either singly,

——— vel mixta rubent ubi lilia multâ  
 Alba rosâ: tales virgo dabat ore colores.

ÆN. lib. xii. 68.

<sup>b</sup> Particularly as an antiepileptic and anodyne.

ERYNGIUM MARITIMUM.







*Eryngium maritimum*

Published by Dr. Woodville Sep<sup>r</sup> 1. 1791.

ERYNGIUM \* MARITIMUM. SEA ERYNGO, or HOLLY.

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*SYNONYMA.* Eryngium. *Pharm. Lond.* *Baub. Pin.* p. 386.  
 Eryngium marinum. *Gerard Emac.* p. 1162. *Park. Theat.* p. 986:  
*J. Baub. Hist.* vol. iii. p. 86. *Raii Hist.* p. 384. *Synop.* p. 222.  
 Eryngium maritimum. *Baub. Pinax.* p. 386. *Hudson. Flor. Ang.*  
*Withering. Bot. Arrang.* p. 264. *Flor. Dan. tab.* 875..

*Class* Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 324.

*Eff. Gen. Ch.* Flores capitati. *Receptaculum* paleaceum..

*Sp. Ch.* E. foliis radicalibus subrotundis plicatis spinosis, capitulis pedunculatis, paleis tricuspidatis.

THE root is perennial, long, round, tough, externally of a brown colour, internally whitish: the stalk is thick, fleshy, round, striated, white, branched, and rises from one to two feet in height: the leaves, which grow from the root, are roundish, plaited, trifid, firm, spinous like those of the holly, marked with white reticulated veins, and of a very pale bluish green colour; those proceeding from the stalk are sessile, and surround the branches: the flowers are small, of a blue colour, and terminate the branches in round heads: the common receptacle is conical, and supplied with *paleæ*, which separate the florets: the involucre of the receptacle is composed of many pointed leaves, which are longer than the florets: the calyx consists of five erect sharp leaves, placed above the germen: the corolla is composed of five oblong petals, with their points turned inwards: the filaments are five, slender, upright, longer than the corolla, and supplied with oblong antheræ: the two styles are filiform,

\* Græci Philosophi Eryngium, quasi *ερυγγος*, id est ructum, dictum putant, quòd capræ quæ morfu furculum Eryngii præciderint, vel deglutiverint, cunctum gregem pone sequentem quasi stupore attonitum sistunt, donec Eryngium ructu rejecerint. *C. Baub. l. c.*

and



and furnished with simple stigmata: the germen is beset with short hairs, and stands beneath the corolla: the fruit is two oblong seeds, connected together. It grows abundantly on the sea coasts, and flowers from July till October.

In the *Materia Medica* of Linnæus, and in almost all the foreign pharmacopœias, the *Eryngium campestre* is considered to be the officinal plant: Geoffroy, however, has observed that the *E. maritimum* is by many thought to be a more powerful medicine, and Simon Paulli <sup>a</sup> gives it the preference; but Boerhaave <sup>b</sup> attributes the same virtues to both, and indeed it seems of little importance which is preferred. *Eryngo* is supposed to be the *νευργιον* of Dioscorides, <sup>c</sup> who with other ancient writers speak highly of its medicinal efficacy. The root, which is the part directed for medicinal use, has no peculiar smell, but to the taste it manifests a grateful sweetness, and on being chewed for some time it discovers a light aromatic warmth or pungency. By Boerhaave this was esteemed the principal of the aperient roots, and he usually prescribed it as a diuretic and antiscorbutic: <sup>d</sup> it has likewise been celebrated for its aphrodisiac powers. <sup>e</sup> But this and the other effects ascribed to *Eryngo* seem now to obtain very little credit.

<sup>a</sup> *Quadrip.* p. 324.

<sup>b</sup> *Hist. pl. T. i.* p. 194.

<sup>c</sup> *Lib. 3. c. 24.* [He recommends it ad menses obstructos, tormina, inflationes hepaticos, venena, venenatos morsus, episthotonicos, & comitiales.

<sup>d</sup> Vide, *l. c.*

<sup>e</sup> “ Non male tum Graiis florens *Eryngus* in hortis

“ Quæritur: hunc gremio portet si nupta virentem

“ Nunquam inconcessos conjux meditabitur ignes.

*Rapinus in Boer. Hist.*

The root is frequently candied, or made into a sweet meat.

The young flowering shoots boiled, have the flavour of asparagus. *Lin. Flor. Succ.*

## ANTHEMIS NOBILIS.





*Anthemis nobilis*

Published by Dr. Wm. Swale Sep. 4 1791



## ANTHEMIS NOBILIS.

## COMMON CAMOMILE.

*SYNONYMA.* Chamæmelum. *Pharm. Lond. & Edinb. Gerard Emac. p. 755. Park. Parad. p. 289.* Chamæmelum nobile seu Leucanthemum odoratius. *Baub. Pin. p. 135. Chamæmelum odoratissimum repens, flore simplici. J. Baub. Hist. v. iii. p. 118. Raii Hist. p. 353. Synop. p. 185.* Chamæmelum foliis subhirsutis, nervo duro, pinnis pinnatis, pinnulis lanceolatis incisfis. *Hal. Stirp. Helv. n. 102. Anthemis nobilis. Hudson, Flor. Ang. With. Bot. Arr.*

*Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 970.*

*Eff. Gen. Ch. Recept. paleaceum. Pappus nullus. Cal. hemisphæricus, subæqualis. Flosculi radii plures quam 5.*

*Sp. Ch. A. foliis pinnato-compositis linearibus acutis subvillosis.*

THE roots are perennial, fibrous, spreading: the stems are slender, round, trailing, hairy, branched, of a pale green colour, and about a foot in length: the leaves are doubly pinnated; the pinnae are linear, pointed, a little hairy, and divided into three terminal segments: the flowers are compound, radiated, white, at the centre yellow, and stand singly: the calyx is common to all the florets, of an hemispherical form, and composed of several small imbricated scales: the flowers of the *radius* are female, and usually about eighteen, narrow, white, and terminated with three small teeth: the tubular part of the floret encloses the whole of the style, but does not conceal the bifid reflexed stigma: the flowers of the *disc* are numerous, hermaphrodite, tubular,\* and cut at the brim into five segments: the filaments are five, very short, and have their antheræ united, forming a hollow cylinder: the germen is oblong: the style is short, slender, and furnished with a bifid reflexed stigma: the seeds are small, and of an irregular shape: the receptacle is supplied with rigid bristle-like paleæ. It grows in most pastures, and flowers in July and August.

The name Camomile is supposed to be expressive of the smell of the plant χαμόμηλον, quoniam odorem mali habeat.<sup>a</sup> It is referred to the ανθεμις of Dioscorides, and to the ανθεμον of Theophrastus. Matricaria Chamomilla, or Corn Feverfew, is similar in its general appearance to the Anthemis nobilis, and is directed for officinal use by most of the foreign pharmacopœias ; but the plant which we have here figured has a more fragrant and a more powerful odour, yields more essential oil, and of course is the more efficacious.

A double-flower'd variety of Camomile is very common, and usually kept in the shops, but as the odorous and sapid matter chiefly resides in the disc, or tubular part of the florets, the London College therefore judiciously prefer the simple flowers, in which this matter is most abundant.<sup>b</sup>

Both the leaves and flowers of this plant have a strong though not ungrateful smell, and a very bitter nauseous taste, but the latter are the bitterer, and considerably more aromatic. “ Camomile flowers give out their virtues both to water and rectified spirit: when the flowers have been dried so as to be pulverable, the infusions prove more grateful than when they are fresh or but moderately dried. Distilled with water, they impregnate the aqueous fluid pretty strongly with their flavour: if the quantity of camomile, submitted to the operation, is large, a little essential oil<sup>c</sup> separates and rises to the surface of the water, in colour yellow, with a cast of greenish or brown, of a pungent taste, and a strong smell, exactly resembling that of the camomile. Rectified spirit, drawn off from the spirituous tincture, brings over likewise a part of the flavour of the chamomile, but leaves a considerable part behind in the extract. The smell is in great measure covered or suppressed by the spirit, in all the spirituous preparations ; but the taste both in the spirituous tincture and extract, is considerable stronger than in the watery.”<sup>d</sup>

<sup>a</sup> *Plin. L. 22. c. 21.*

<sup>b</sup> The tubes of the florets appear beset with minute glands, which probably secrete the essential oil.

<sup>c</sup> Baumé obtained from 82 ℥ of the flowers 13 drams, and once 18 drams of essential oil. But from a like quantity of the herb, without the flowers, only half a dram of this oil was procured. See *Berg. M. M. p. 695.*

<sup>d</sup> *Lewis, M. M. p. 221.*



These flowers possess the tonic and stomachic qualities usually ascribed to simple bitters, having very little astringency, but a strong odour of the aromatic and penetrating kind, from which they are also judged, to be carminative, emmenagogue, and in some measure antispasmodic and anodyne. They have been long successfully employed for the cure of intermittents;<sup>e</sup> as well as of fevers of the irregular nervous kind, accompanied with visceral obstructions, for which we have the authority of Sir John Pringle.<sup>f</sup>

That camomile flowers may be effectually substituted for Peruvian bark in the cure of intermittent fevers, appears from the testimony of several respectable physicians, to which we have referred; and to which we may add that of Dr. Cullen, who says, "I have employed these flowers, and agreeable to the method of Hoffman, by giving several times during the intermission, from half a dram to a dram of the flowers in powder, have cured intermittent fevers. I have found however that the flowers were attended with this inconvenience, that, given in a large quantity, they readily run off by stool, defeating thereby the purpose of preventing the return of paroxysms; and I have found, indeed, that without joining with them an opiate, or an astringent, I could not commonly employ them."<sup>g</sup>

These flowers have been found useful in hysterical affections, flatulent or spasmodic colics, and dysentery, but from their laxative quality, Dr. Cullen tells us, they proved hurtful in diarrhœas. A simple watery infusion of them is frequently taken, in a tepid state, for the purpose of exciting vomiting or for promoting the operation of emetics. Externally the flowers are used in the decoctum pro fomento, and they are an ingredient in the decoctum pro enemate.

<sup>e</sup> Morton, (*Exercit. 1. de febr. interm. cap. 6.*) Hoffman, (*Diff. de præstan. rem. dom. p. 29.*) Heister, (*Diff. de Medic. Germ. indig. p. 13.*) found these flowers more effectual in the cure of intermittents than the peruv. bark: and Dr. Cullen observes, that his celebrated countryman, Dr. Pitcairn, was of opinion that the powers of Cam. flowers were in this respect equal to the bark.

<sup>f</sup> *Dis. of the Army*, p. 216.

<sup>g</sup> *M. M. vol. ii. p. 79.*

## ANTHEMIS PYRETHRUM.



ANTHEMIS PYRETHRUM. SPANISH CAMOMILE,  
Or, PELLITORY of SPAIN.

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*SYNONYMA.* Pyrethrum. *Pharm. Lond. & Edinb.* Pyrethrum flore bellidis. *Baub. Pin. p.* 148. Pyrethrum officinarum. *Lob.* 447. *Gerard Emac. p.* 758. *Park. Theat. p.* 858. *Raii Hist. p.* 353. Chamæmelum specioso flore, radice longa fervida. *Shaw, Afr. p.* 138. Anthemis caulibus simplicibus unifloris decumbentibus. *Mill. Fig. t.* 38. *πύρεθρον Dioscorid. Lib. 3. c.* 85.\*

*Class* Syngenesia. *Ord.* Polygamia Superflua, *Lin. Gen. Plant.* 970.

*Eff. Gen. Ch. Recept.* paleaceum. *Pappus* nullus. *Cal.* hemisphæricus, subæqualis. *Flosculi* radii plures quam 5.

*Sp. Ch.* A. caulibus simplicibus unifloris decumbentibus, foliis pinnato-multifidis.

THE root is perennial, tapering, long, externally whitish, and sends off several small fibres: the stems are usually simple, round, trailing, bearing one flower, and scarcely a foot in height; but the specimen here figured was extremely luxuriant, and has in some degree departed from its more common and simple appearance: the leaves are doubly pinnated, segments narrow, nearly linear, and of a pale green colour: the flowers are large, at the disc of a yellow colour, at the radius white on the upper side, on the under side of a purple colour: the different florets answer to the description given of the Anthemis nobilis. It flowers in June and July.

This plant is a native of the Levant and the southern parts of Europe; it was cultivated in England by Lobel in 1570,<sup>a</sup> but it does

\* Ab igne nomen habet, ob radicis ejus fervorem igneum. *V. Baub. l. c.*

<sup>a</sup> *Adver. p.* 346. *Vide Hort. Kew.*



*Anthemis Pyrethrum*

Published by D<sup>r</sup> Woodville, Sep<sup>r</sup> 1. 1791.





not ripen its seeds here unless the season proves very warm and dry.<sup>b</sup> The root of *Pyrethrum* has a very hot pungent taste, without any sensible smell." Its pungency resides in a resinous matter, of the more fixed kind; being extracted completely by rectified spirit, and only in small part by water; and not being carried off, in evaporation or distillation by either menstruum."<sup>c</sup>

The ancient Romans, we are told, employed this root as a pickle,<sup>d</sup> and indeed it seems less acrid than many other substances now used for this purpose. In its recent state this root is not so pungent as when dried, yet if applied to the skin it is said to act like the bark of mezerion, and in four days produces inflammation of the part.<sup>e</sup>

From the aromatic and stimulating qualities of *Pyrethrum*, there can be no doubt but that it might be found an efficacious remedy, and equally fitted for an internal medicine, as many others of this class now constantly prescribed. Its use however has been long confined to that of a masticatory,<sup>f</sup> for on being chewed, or long retained in the mouth, it excites a glowing heat, stimulates the excretories of saliva, and thereby produces a discharge, which has been found to relieve toothachs, and rheumatic affections of the face; in this way too, it is recommended in lethargic complaints, and paralyzes of the tongue.

<sup>b</sup> *Miller Dict.*

<sup>c</sup> *Lewis M. M. p. 527.*

<sup>d</sup> See *Berg. M. M. p. 698.*

<sup>e</sup> *Bergius, V. l. c.*

<sup>f</sup> Its use in this way is mentioned by *Serenus Samonicus.*

"Purgatur cerebrum mansa radice pyrethri."

SPIGELIA MARILANDICA. PERENNIAL WORM-GRASS,  
Or, INDIAN PINK.

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*SYNONYMA.* Spigelia. *Pharm. Lond. & Edinb.* Periclymeni virginiani flore coccineo planta marilandica, spica erecta, foliis conjugatis. *Catesby Carol. vol. ii. p. 78.* Lonicera marilandica spicis terminalibus, foliis ovato-oblongis acuminatis distinctis sessilibus. *Sp. Plant. p. 249.* Spigelia marilandica fol. ovatis oppositis spica secunda terminali. *Walter Flor. Carol. p. 92.* Vide *Mantiss. Lin. ii. p. 338.* *Eff. & Obs. Phys. & Lit. vol. iii. p. 151.* *Curt. Bot. Mag. 80.*

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 209.*

*Eff. Gen. Ch.* Cor. infundibulif. *Caps.* didyma, 2-locularis, polysperma.

*Sp. Ch.* S. caule tetragono, foliis omnibus oppositis.

THE root is perennial, unequal, simple, sends off many slender fibres, and grows in an horizontal direction: the stalk is simple, erect, smooth, obscurely quadrangular, of a purplish colour, and commonly rises above a foot in height: the leaves are ovate, sessile, somewhat undulated, entire, of a deep green colour, and stand in pairs upon the stem: the flowers are large; funnel-shaped, and terminate the stem in a spike: the calyx divides into five long narrow pointed smooth segments: the corolla is monopetalous, consisting of a long tube, gradually swelling towards the middle, of a bright purplish red colour, and divided at the mouth into five pointed segments, which are yellow on the inside: the five filaments are about the length of the tube, and crowned with halberd-shaped antheræ: the germen is small, ovate, placed above the insertion of the corolla, and supports a round style, which is longer than the corolla, furnished with a joint near its base, and bearded towards the extremity, which is supplied with an obtuse stigma: the capsule is double, two-celled, and contains many small angular plano-convex seeds. It is a native of America, and flowers in July and August.

Linnaeus



*Spigelia maritandica*

Published by Dr. Woodville Sep. 1. 1791





Linnæus first supposed this plant to be a *Lonicera*, or Honey-suckle, but afterwards he ascertained its characters, and called it *Spigelia*, in honour of the botanist Spigelius, whose first work was published in 1606.\*

Two species of *Spigelia* are now known to botanists, viz. *S. Anthelmia* and *marilandica*; they have both been used as anthelmintics; the effects of the former are noticed by Dr. Browne in the Gentleman's Magazine, for the year 1751, and in his History of Jamaica;<sup>a</sup> also by Dr. Bocklesby,<sup>b</sup> and several foreign writers. But the accounts of the vermifuge virtues of *Spigelia*, given by Drs. Linning<sup>c</sup> and Garden,<sup>d</sup> from Charlestown, South Carolina, evidently refer to the latter species, which is here figured; and as the anthelmintic efficacy resides chiefly in the root of the plant, that of the *Anthelmia*, or Annual *Spigelia*, which is very small, must be incomparably less powerful than the root of the *marilandica*, which is perennial. Dr. Garden, in his first letter to Dr. Hope, which was written about the year 1763, says, "About forty years ago, the anthelmintic virtues  
" of the root of this plant were discovered by the Indians; since  
" which time it has been much used here by physicians, practitioners,  
" and planters; yet its true dose is not generally ascertained. I have  
" given it in hundreds of cases, and have been very attentive to its  
" effects. I never found it do much service, except when it proved  
" gently purgative. Its purgative quality naturally led me to give it  
" in febrile diseases, which seemed to arise from viscidities in the  
" *primæ viæ*; and, in these cases, it succeeded to admiration, even  
" when the sick did not void worms.

" I have of late, previous to the use of the Indian Pink, given a  
" vomit, when the circumstances of the case permitted it; and I  
" have found this method answer so well, that I think a vomit should  
" never be omitted. I have known half a dram of this root purge  
" as briskly as the same quantity of rhubarb; at other times I have  
" known it, though given in large quantities, produce no effect upon  
" the belly: in such cases, it becomes necessary to add a grain or two

\* *Adriani Spigellii in rem herbariam Isagoge*, Patavii.

<sup>a</sup> *P.* 156.

<sup>b</sup> *Oec. & Med. Observations*, p. 282.

<sup>c</sup> *Sec Eff. & Observ. Physical & Literary*, vol. i. p. 386.

<sup>d</sup> *L. c.*

“ of sweet mercury, or some grains of rhubarb ; but it is to be ob-  
 “ served, that the same happy effects did not follow its use in this  
 “ way, as when it was purgative without addition. The addition  
 “ however of the purgative renders its use safe, and removes all  
 “ danger of convulsions of the eyes,<sup>c</sup> although neither *ol. rutæ, sabinae*,  
 “ or any other nervous substance, is given along with it. It is, in  
 “ general, safer to give it in large doses than in small ; for, from the  
 “ latter more frequently the giddiness, dimness of the sight, and  
 “ convulsions, &c. follow ; whereas, from large doses, I have not  
 “ known any other effect than its proving emetic or violently cathar-  
 “ tic. To a child of two years of age, who had been taking ten  
 “ grains of the root twice a-day, without having any other effect  
 “ than making her dull and giddy, I prescribed twenty-two grains  
 “ morning and evening, which purged her briskly, and brought  
 “ away five large worms.<sup>f</sup> After some months an increased dose had  
 “ the same good effects. I prefer the root to the other parts of the  
 “ plant, of which, when properly dried, I gave from twelve to sixty  
 “ or seventy grains in substance. In infusion it may be given to the  
 “ quantity of two, three, or four drams twice a day. I have found  
 “ that, by keeping, the plant loses its virtue in part ; for forty grains  
 “ of the root which has not been gathered above two months, will  
 “ operate as strongly as sixty which has been kept for fifteen  
 “ months.”<sup>g</sup>

In Dr. Garden's subsequent letters, addressed to Dr. Hope in the  
 years 1764 and 1766, the efficacy of this root in worm cases is further  
 confirmed, and he observes, that the root keeps better than he at first  
 thought, having lately used it several years old with great success.  
 In what he calls continued or remitting low worm fevers, he found  
 its efficacy promoted by the addition of *rad. sepentar. virg.*

<sup>c</sup> This root, when taken in large doses, and not readily passing off by stool or vomit-  
 ing, is observed not only to affect the head but in a peculiar way the muscles which move  
 the eyes ; an effect which is noticed both by Linning and Garden, and is to be removed  
 by administering a cathartic.

<sup>f</sup> According to Linning, “ thirty large worms, the *teretes*, were at once voided” by  
 a Negro girl from the use of this root. *l. c.*

<sup>g</sup> As this plant seems to be received into the *Materia Medica* principally on the autho-  
 rity of Dr. Garden, we have judged it proper to give his account in his own words.

## ARISTOLOCHIA SERPENTARIA.







*Aristolochia*

*Serpentaria*

Published by

D. Woodville Oct. 1. 1791.

## ARISTOLOCHIA SERPENTARIA.

SNAKE-ROOT  
BIRTHWORT.

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*SYNONYMA.* *Serpentaria virginiana.* *Pharm. Lond. & Edinb.*  
*Aristolochia Piftolochia* f. *Serpentaria virginiana*, caule nodoso.  
*Pluk. Alm.* 50. t. 148. *Catesby Hist. of Carol. t. i. p. 29. tab. 29.*  
*Raii Hist. vol. iii. p. 394.* *Aristolochia polyrrhizos virginiana*, &c.  
*Morris. Hist. iii. p. 310.* *Park. Theat. p. 420.*

*Class* Gynandria. *Ord.* Hexandria. *Lin. Gen. Plant.* 1022.

*Eff. Gen. Ch.* Hexagyna. *Cal.* 0. *Cor.* 1-petala, lingulata, integra.  
*Caps.* 6-locularis, infera.

*Sp. Ch.* A. fol. cordato-oblongis planis, caulibus infirmis flexuosis teretibus, flor solitariis. *Caulis geniculata valde nodosa. Flores ad radicem.*

THE root is perennial, and composed of a number of small fibres, proceeding from a common trunk; externally brown, and internally whitish: the stems are slender, round, crooked, jointed, and rise about eight or ten inches in height: the leaves are heart-shaped, entire, pointed, veined, and stand upon strong footstalks, to which they are attached by three prominent ribs: it has no calyx: the flowers are monopetalous, solitary, of a purplish brown colour, and placed upon long sheathed jointed peduncles, which rise from the lower articulations of the stem: the corolla is tubular, irregular; at the base distended into a globular figure, at the middle contracted and twisted, at the extremity spreading, and of a triangular form: it has no filaments, but six antheræ, which are attached to the under side of the stigma: the germen is oblong, angular, and placed below the corolla: the style is extremely short: the stigma is roundish, and divided into six parts: the capsule is hexagonal, separated into six cells, which contain several small flat seeds. It is a native of Virginia, and flowers in August.



The first account we have of *Serpentaria* is that given in Johnson's edition of Gerard, in which we are told that it was brought from Virginia, and grew in the garden of Mr. John Tradescant, of South Lambeth, in 1632. But Johnson evidently confounds the *Serpentaria* with the *Pistolochia cretica* of Clusius. In 1635, Dr. J. Cornutus published at Paris, *Canadensium plantarum, aliarumque nondum editarum, Historia*, wherein the *Serpentaria* is noticed under the name of *Radix Snagroel Nothæ Angliæ*, and highly extolled as an effectual remedy for the bites of the most poisonous serpents.\*

Plukenet, whose botanical knowledge of this plant will not be doubted, informed Dale, that the roots of three different species of *Aristolochia* were sent to Europe for those of snake-root;<sup>a</sup> but though this might have happened a century ago, at present the practice appears to be no longer continued, for we have carefully examined several parcels of snake-root, without discovering these roots intermixed with those of the others referred to by Dale. We may notice however, that among these roots, some specimens of the whole plant were found, which differed from the annexed figure, having lance-shaped leaves. And this variety of *Serpentaria* seems to accord with that noticed by Alston, who says, "the dried specimen I have of the whole plant, brought directly from America by Mr. Richard Lightbody, surgeon, agrees with none of them; (meaning the three mentioned by Dale) the leaves no way resembling a heart at the footstalk, being there all roundish, or obtusely pointed."<sup>b</sup> The plant, from which the present figure was designed, is now growing in the Royal Botanic

\* "Missa quoque est ad me ex notha Anglia radix quam *Serpentariæ* vocant, vernacule Snagroel cum hac inscriptione. Hæc radix alexiterium præsentissimum est, contra morsum serpentis ingentis perniciosissimique in notha Anglia, cujus morsus intra duodecim horas interficit, nisi hujus radice sumatur portio, qua sumpta nullus unquam auditus est periclitari de vita." p. 214.

<sup>a</sup> "Tres radices sub hoc nomine in officinis nostris veniunt, ut nos monuit eruditissimus ille Botanicus *Leonard Plukenetius*, M. D. in literis ad me datis, viz. 1. *Aristolochia polyrrhizos*, auriculatis foliis Virginiana. *Pluk. Phytog. Tab.* 78. *Almag.* 50. *Tourn. Inst.* 162. &c. 2. *Aristolochia Violæ fruticosæ* foliis Virginiana, cujus radix *Serpentaria* dicitur. *Pluk. Phytog. T.* 15. *Almag.* 50. &c. 3. *Aristolochia Pistolochia*, seu *Serpentaria* Virginiana, caule nodoso." This last is the plant we have figured. See Dale, *Pharmacol.* p. 194.

<sup>b</sup> *M. M.* vol. i. p. 521.

Garden at Kew, where it was introduced by Mr. William Young about the year 1770.<sup>c</sup>

“ Snake-root has an aromatic smell, approaching to that of valerian, but more agreeable, and a warm bitterish pungent taste, which is not easily concealed or overpowered by a large admixture of other materials. It gives out its active matter both to water and rectified spirit, and tinges the former of a deep brown, the latter of an orange colour. Greatest part of its smell and flavour is carried off in evaporation or distillation by both menstrua: along with water there arises, if the quantity of the root submitted to the operation be large, a small portion of pale-coloured essential oil, of a considerable smell, but no very strong taste, greatest part of the camphorated pungency, as well as bitterness of the root, remaining in the inspissated extract. The spirituous extract is stronger than the watery: not so much from its having lost less in the evaporation, as from its containing the active parts of the root concentrated into a smaller volume; its quantity amounting only to about one-half of that of the other.”<sup>d</sup>

The root, as we have already observed, was first recommended as a medicine of extraordinary power in counteracting the poisonous effects of the bites of serpents, and it has since been much employed in fevers, particularly those of the malignant kind: a practice which seems founded on a supposition that the morbid matter of these fevers is somewhat analogous to the poison of serpents, and that its influence upon the human system might be obviated by the same means: hence *Serpentaria* has been considered the most powerful of those medicines termed alexipharmics. Modern physicians however have exploded this theory of antidotes, and the alexiterials and theriacas so industriously studied ever since the first ages of Greece, are now wholly disregarded.

*Serpentaria* is thought to possess tonic and antiseptic virtues, and is generally admitted to be a powerful stimulant and diaphoretic; and in some fevers where these effects are required, both this and *contrayerva* have been found very useful medicines, as abundantly

<sup>c</sup> We had this information from Mr. Aiton, who desires us to say, that, by mistake, this plant was passed unnoted in the *Hort. Kew*.

<sup>d</sup> *Lewis, M. M. p. 602.*



appears from the experience of Huxham, Pringle, Hillary, Lysons, and others: yet it may be remarked, that by some of these authors this root has been employed too indiscriminately, for there seems to us some inconsistency in the practice of bleeding and giving snake-root in the same fever.

It is thought by many, that peruvian bark and wine may in every case supersede the use of *Serpentaria*;<sup>e</sup> but this opinion is also liable to exceptions, as a mixed state of fever has been frequently observed to prevail, in which the bark has proved hurtful, though this root has evidently had a good effect; and even in intermittent fevers the bark has been found more efficacious when joined with *Serpentaria* than when given alone;<sup>f</sup> and this has been also the case in continued fevers. The dose of snake-root is usually from ten to thirty grains in substance, and to a dram or two in infusion. A *tinctura serpentariæ* is directed both in the London and Edinburgh Pharmacopœias.

<sup>e</sup> In cases marked with progressive signs of debility and putridity, there cannot be a doubt but that the bark, wine, and a suitable application of cold, are the remedies chiefly to be trusted; but by admitting this, we are not to reject *Serpentaria* as utterly useless in all fevers.

<sup>f</sup> Vide Lysons, *Practical Essays upon intermitting fevers*, p. 13. seq.

## ARISTOLOCHIA LONGA. LONG-ROOTED BIRTHWORT.

*SYNONYMA.* Aristolochia. *Pharm. Edinb.* Aristolochia longa. *Clus. Hist.* ii. p. 70. *J. Baub. Hist.* iii. p. 560. *Gerard Emac.* p. 846. *Raii Hist.* p. 762. Aristolochia longa vera. *Baub. Pin.* p. 307. *Park. Theat.* p. 291. *Tourn. Inst.* p. 162. *Miller's Fig. tab.* 61.

*Class* Gynandria. *Ord.* Hexandria. *Lin. Gen. Plant.* 1022.

*Eff. Gen. Ch.* Hexandria. *Cal.* 0. *Cor.* 1-petala, lingulata, integra. *Caps.* 6-locularis, infera.

*Sp. Ch.* A. fol. cordatis petiolatis integerrimis obtusiusculis, caule infirmo, flor. solitariis.

THE





*Aristolochia longa*

Published by Dr Woodville Oct 1 1791



THE root is perennial, long, tapering, branched, externally wrinkled and brown, internally yellowish: the stems are slender, round, branched, trailing, and usually exceed a foot in length: the leaves are heart-shaped, obtuse, entire, veined, of a pale green colour, and placed alternately upon round footstalks, which are about the length of the leaves: the flowers are solitary, and stand upon peduncles, which arise close to the leaf-stalks: the corolla forms a more regular tube than that of the *Serpentaria*, and is tongue-shaped at the extremity: the other parts of fructification are similar to those described of *Serpentaria*. It is a native of the South of Europe, and flowers from June till October.

The medicinal character of *Aristolochia* was formerly in great repute, and physicians very generally employed various species of the plant. Those received into our pharmacopœias, were 1. *Aristolochia longa*. 2. *A. rotunda*. 3. *A. tenuis* or *clematitis* of Linnæus. But the roots of these plants have for a long time been gradually falling into disuse, and at present, we believe, are rarely if ever prescribed: they are all expunged from the *Mat. Med.* of the London Pharmacopœia, but in that of the Edinburgh the last species is still retained, and therefore, according to our plan, it might have been figured here; but as these different species are generally allowed to be similar in their medicinal qualities, we trust that the first, which is the most rare and curious, will be found the most acceptable to our readers.

All the Birthwort roots have somewhat of an aromatic smell, and a warm bitterish taste. That of the long and round species, on first being chewed, scarcely discover any taste, but in a little time prove nauseously bitter, accompanied with a slight degree of pungency. “ They give out their virtue, by infusion, both to spirituous and watery menstrua; to the first most perfectly. In distillation, pure spirit brings over little or nothing: with water there arises, at least from the slender-rooted sort, a small portion of essential oil, possessing the smell and flavour of the roots.”<sup>a</sup>

The virtues which the ancients ascribed to *Aristolochia* were very considerable, and it was consequently employed in various diseases,

<sup>a</sup> Lewis, *M. M.* p. 112.



particularly those thought to proceed from obstructions,<sup>b</sup> more especially of the uterine system:<sup>c</sup> hence the name Aristolochia is said to have arisen from its supposed emmenagogue powers.<sup>d</sup> And as a warm stimulating medicine, Dr. Cullen tells us<sup>e</sup> he found it useful in some cases of retention and chlorosis, but never in cases of suppression. Aristolochia has also been long very generally commended as a remedy for the gout, and it is the first ingredient in the Portland powder,<sup>f</sup> which has been much celebrated for the cure of this disease. It appears however that the long continued use of this powder, which is necessary for preventing the return of arthritic paroxysms, seldom fails to superinduce a premature senile state of body, and to lay a foundation for more fatal diseases.<sup>g</sup> It is probable that the medicinal qualities of this plant are somewhat allied to those of its congener, the *Serpentaria*; but the sensible properties of the latter demonstrate it to be a more active medicine.

Aristolochia is given in substance from a scruple to two drams for a dose.

<sup>b</sup> Fernelius *Method. Med. Lib. 6. cap. 12. p. 163.*

<sup>c</sup> Hippocr. *De nat. muliebri. p. 572. Oper. Föesii.*

<sup>d</sup> Ab ἀριστος & λοχεια. It has also been derived from Aristolochius, who is said to have first discovered its virtues.

<sup>e</sup> See *Mat. Med. vol. ii. p. 83.*

<sup>f</sup> The powder is thus prepared: — R<sub>x</sub>. Aristol. rotund. gentian. summit. et fol. chamædr. chamæpit. centaur. min.  $\overline{\text{aa}}$  p. æ. f. pulvis. A dram of this powder is directed to be taken every morning (jejuno ventriculo) for the space of three months, when the dose is to be diminished to three quarters of a dram for the next three months, and afterwards continued for six months in doses of half a dram, which, during the second year is to be taken every other morning.

<sup>g</sup> Brunner, *De pancr. p. 143. Werlhoff. Caut. Med. Tract. i. p. 32.* See also Cullen's *First Lin.*

INULA HELENIIUM.





*Inula Helenium*

Enligned by Dr. Woodville. Oct. 1. 1791



## INULA HELENIIUM.

COMMON INULA, Or,  
ELECAMPANE.

*SYNONYMA.* Enula Campana. *Pharm. Lond.* Helenium. Gerard *Emac.* p. 793. *Raii Hist.* p. 273. *Synop.* p. 176. Helenium vulgare. *Bauh. Pin.* p. 276. Helenium five Enula campana. *J. Bauh. Hist. iii.* p. 108. *Park. Theat.* p. 654. After foliis ovato-lanceolatis, ferratis, subtus tomentosis, calycinis ovato-lanceolatis, maximis. *Hal. Stirp. Helv. n.* 72. Inula Helenium. *Hudson Flor. Ang.* p. 368. *With. Bot. Arr.* p. 922. *Flor. Dan.* 728.

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 956.

*Eff. Gen. Ch.* Recept. nudum. *Pappus* simplex. *Anthæræ* basi in fetas duas desinentes.

*Sp. Ch.* T. foliis amplexicaulibus ovatis rugosis subtus tomentosis, calycum squamis ovatis.

THE root is perennial, large, thick, branched, externally brown or grey, internally whitish: the stalk is upright, strong, round, striated, branched, beset with soft hairs, and rises three or four feet in height: the leaves are large, ovate, ferrated, crowded with reticular veins, supplied with a strong fleshy midrib, on the upper pagina smooth, on the under downy: the leaves, which are placed on the upper part of the stem are sessile, and surround the branches, but those towards the bottom stand upon footstalks: the flowers are large, yellow, of the compound kind, and terminate the stem and branches: the calyx is composed of several rows of strong imbricated ovate segments: the corolla consists of numerous florets, which are of two kinds; those occupying the *centre* are of a regular tubular form, divided at the brim into five small segments, and are *hermaphrodite*, each containing five short filaments, which have their antheræ united so as to form a hollow cylinder and a long germen, which supports a  
slender

flender style, about the length of the tube, and furnished with a bifid stigma: the florets at the *circumference* are *female*, and at the lower part tubular, but at the upper ligulated or strap-shaped, and cut at the extremity into three narrow pointed teeth; the female part is similar to that in the hermaphrodite florets: the seeds are solitary, striated, quadrangular, and furnished with a simple feather or pappus: the receptacle is naked and flat. It is a native of England, growing in moist meadows, and flowers in July and August.

It is probable, that Elecampane is the *Helenium foliis verbasci* of Dioscorides,<sup>a</sup> and the *Inula* of Pliny,<sup>b</sup> who also mentions *Helenium* but as a very different plant.<sup>c</sup> Elecampane is seldom to be met with in its wild state, but it is commonly cultivated in gardens, from whence the shops are supplied with the root, which is the part directed for medicinal use. "This root, in its recent state, has a weaker and less grateful smell than when thoroughly dried and kept for a length of time, by which it is greatly improved, its odour then approaching to that of Florence orris. Its taste, on first being chewed, is glutinous and somewhat rancid, quickly succeeded by an aromatic bitterness and pungency. Spirituous liquors extract its virtues in greater perfection than watery; the former scarce elevate any thing in distillation; with the latter an essential oil arises, which concretes into white flakes: this possesses at first the flavour of the Elecampane, but generally loses it on keeping. An extract, made with water, possesses the bitterness and pungency of the root, but in a less degree than that made with spirit."

The high opinion entertained by the ancients of the virtues of Elecampane may be collected from the words of Schroder, who says, "Abstergit, discutit, aperit, pulmonica est. Stomacha, alexipharmaca, sudorifera, &c. *Usus præcip.* in tartaro pulmonum renumque attenu-

<sup>a</sup> *Lib. i. cap. 27.*

<sup>b</sup> *Lib. xix. cap. 5.*

<sup>c</sup> "Helenium e lacrymis Helenæ natum, & ideo in Helena insula laudatissimum. Est autem frutex humi se spargens odorantibus ramulis, folio simili serpyllo." *Lib. xxi. c. 9.*

The *Inula* is noticed by Horace:

"Erucas virides, inulas ego primus amaras  
Monstravi incoquere."

SAT. 8. v. 51.

—— quum rapula plenus  
Atque acidus mavult inulas.

SAT. 2. v. 44.  
ando,







*Thymus vulgaris.*

Engraved by D<sup>r</sup> Woodville del. 1791.

ando, ac educendo, & hinc in tussi, asthma, in cruditatibus ventriculi emendandis, ureteribus referandis, in peste, contagiosisque morbis arcendis, in scabie.”<sup>d</sup> Bergius also ascribes many virtues to this root, and from its sensible and chemical qualities it promises to be a medicine of some efficacy; but in the diseases in which it is principally recommended, as dyspepsia, pulmonary affections, and uterine obstructions, we have no satisfactory evidence of its medicinal powers.<sup>e</sup> One dram of this root in infusion, and from two drams to half an ounce in decoction, is said to be the dose usually given.

<sup>d</sup> P. 602. See *Alston's M. M. vol. i. p. 454.*

<sup>e</sup> See *Cullen's M. M. vol. ii. p. 459.*

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## THYMUS VULGARIS.      COMMON GARDEN THYME.

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*SYNONYMA.* Thymus. *Pharm. Edinb.* Thymus vulgaris folio tenuiore. *Baub. Pin. p. 219.* *Tourn. Inst. p. 196.* Thymum durius. *Dod. Pempt. p. 275.* *Gerard Emac. p. 573.* *Raii Hist. p. 521.* *Park. Theat. p. 7.*

<sup>a</sup> Thymus vulgaris folio tenuiore.  
*Narrow-leav'd Garden Thyme.*

*C. B.*

<sup>β</sup> Thymus vulgaris folio latiore.\*  
*Broad-leav'd Garden Thyme.*

*C. B.*

*Hort. Kew.*

*Class* Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant. 727.*

*Eff. Gen. Ch.* Calycis bilabiati faux villis clausa.

*Sp. Ch.* T. erectus, foliis revolutis ovatis, floribus verticillato-spicatis.

THE root is perennial, woody, and subdivided into small fibres: the stems are numerous, round, hard, branched, and usually rise about a foot

\* This is the variety to which the figure and description here given apply.

in height: the leaves are small, narrow, elliptical, often slightly indented at the edges, beset with small glands, and stand in pairs upon very short footstalks: the flowers terminate the branches in whorls or round clusters: the calyx is tubular, striated, closed at the mouth with small hairs, and divided into two lips; of these the uppermost is cut into three teeth, the lowermost into two: the corolla is monopetalous, consisting of a tube, which is about the length of the calyx, and divided at the brim into two lips, of a pale purple colour; the *upper lip* is erect, or turned back, and notched at the end; the *under lip* is longer, expanding, and divided into three segments; of these the middle segment is the broadest: the filaments are two long, and two short: the antheræ small and round: the germen is divided into four parts, from the centre of which issues the style, which is thread-shaped, and furnished with a bifid stigma: the seeds are four, small, roundish, and lodged at the bottom of the calyx. It is a native of the South of Europe, and flowers from May till August.

According to C. Bauhin, this plant is the *Θύμος* of Dioscorides and Theophrastus.<sup>a</sup> It grows wild abundantly in the mountainous parts of Italy and Spain; we are therefore the more induced to suppose it to be the plant of this name so frequently mentioned by the Latin poet.<sup>b</sup> It was cultivated by Gerard, and usually finds place in our gardens with the other pot-herbs.

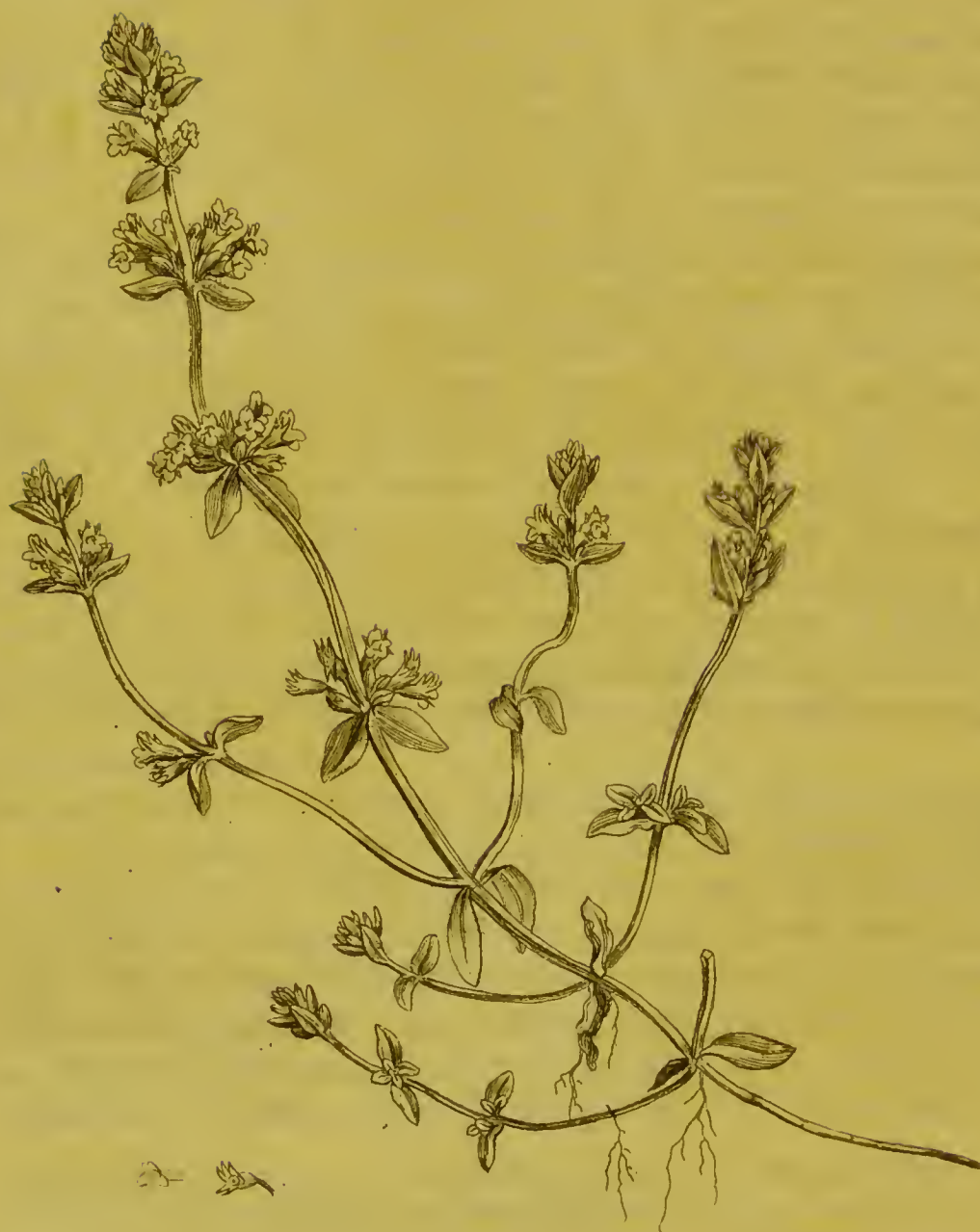
This herb has an agreeable aromatic smell, and a warm pungent taste. "To water it imparts, by infusion, its aromatic odour, but only a weak taste: in distillation, it gives over an essential oil, in quantity about an ounce, from thirty pounds of the herb in flower; of a gold yellow colour if distilled by a gentle fire, of a deep brownish red if by a strong one, of a penetrating smell, resembling that of the Thyme itself, in taste excessively hot and fiery: the remaining decoction inspissated, leaves a bitterish, roughish, subsaline extract. The

<sup>a</sup> "Dioscorid. L. 3. c. 44. Theophrast. 4. hist. 7. & 6. hist. 2. 1. caus. 5. *απο τῆς θυμῆς*, quod iis qui animi deliquium patiuntur adhibeatur: alii *απο τῆς θυμάσεως καὶ τῆς θυμῆς* deducunt, quod hoc veteres in sacris, quæ igne accenso fiebant, primum usi sint, ut apud Rhodiginum, L. 3. c. 23. legere est."

<sup>b</sup> 'Nerine Galatea, thymo mihi dulcior Hyblæ.' Both this species and the Serpyllum are probably alluded to; they are equally fragrant, and coveted by bees.







*Thymus serpyllum.*

Del. by W. Woodhouse. Scul. by J. G. 1791

active matter, which by water is only partially dissolved, is by rectified spirit dissolved completely, though the tincture discovers less of the smell of the Thyme than the watery infusion: the spirit brings over, in distillation, a part of its flavour, leaving an extract of a weak smell, and of a penetrating camphorated† pungency.”<sup>c</sup>

By Bergius the virtues of Thyme are said to be resolvent, emmenagogue, diuretic, tonic, and stomachic;<sup>c</sup> but we find no disease mentioned in which its use is particularly recommended either by him or other writers on the *Materia Medica*. As agreeing in common with the natural order of *verticillatæ*, its aromatic qualities may be found equally useful in some of those complaints for which lavender, sage, rosemary, &c. are usually employed.

<sup>c</sup> Lewis, *M. M.* p. 650.

† This plant seems actually to contain a species of camphor, thus noticed by Murray: *Camphoræ speciem continet herba, quæ sese declaruit mox post destillationem ejus cum aqua, dum oleum ab ea separaretur, tam in gossypio quam orificio vitri, crystallis exiguis, dein post aliquot dierum moram in fundo vitri crystallis, avellanæ nucis adeo magnitudinis, cubicis, saccharo candi similibus.*” *App. Med. vol. ii. p. 125.* These with the odour of Thyme, had in every other respect the qualities of camphor. See *Phil. Trans. vol. xxxiii. p. 321. Jqq. & p. 361.*

<sup>c</sup> *M. M.* p. 536.

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## THYMUS SERPYLLUM. WILD, or MOTHER of THYME.

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*SYNONYMA.* Serpyllum. *Pharm. Edinb.* Serpyllum vulgare minus. *Baub. Pin. p. 220. Park. Theat. p. 8.* Serpyllum vulgare. *Gerard Emac. p. 570. Raii Hist. p. 521. Synop. p. 230.* Thymus foliis ovatis ad basin ciliatis. *Hal. Stirp. Helv. n. 235.* Thymus Serpyllum. *Hudson. Flor. Ang. p. 229. Withering. Bot. Arrang. p. 623. Curt. Flor. Lond.*

<sup>α</sup> Serpyllum vulgare minus.

*C. B.*

*Common smooth Mother of Thyme.*

<sup>β</sup> Serpyllum foliis citri odore.

*C. B.*

*Lemon Thyme.*

<sup>γ</sup> Serpyllum



γ *Serpyllum villosum fruticosius, floribus dilute rubentibus.* *Ray Synop.*  
*Hoary Mother of Thyme.*

δ *Serpyllum angustifolium hirsutum.* *C. B.*  
*Hairy Mother of Thyme.* *See Hort. Kew.*

*Class Didynamia. Ord. Gymnospermia. Lin. Gen. Plant. 727.*

*Eff. Gen. Ch. Calycis bilabiati faux villis clausa.*

*Sp. Ch. T. floribus capitatis, caulibus repentibus, foliis planis obtusis basi ciliatis.*

THE root is perennial, woody, fibrous, and of a brown colour: the stems are numerous, hard, square, branched, procumbent, and rise from four inches to a foot in height: the flowers are of a purplish colour, and stand in whorls towards the top of the stem and branches: the leaves are ovate, entire, smooth, beset with numerous small glands, fringed with hairs towards the base, and stand in pairs upon very short footstalks: the calyx, the corolla, and sexual parts, correspond with those mentioned of the *Thymus vulgaris*. It is a native of Britain, affecting heaths and mountainous situations, flowering in July and August.

It is observed by Mr. Curtis, that “ few plants are subject to so many varieties as the Wild Thyme. In its most natural state, when found on dry exposed downs,<sup>a</sup> it is small and procumbent: when growing among furze or other plants, which afford it shelter, it runs up with a slender stalk to a foot or more in height, and assumes an appearance which might puzzle the young botanist.” The specimen, from which the drawing for the annexed plate was taken, grew in a situation which subjected it to neither of these extremes; but it has been so far sheltered as to participate more of the character of the

<sup>a</sup> It has been a received opinion, that this and other aromatic herbs give a flavour to the flesh of sheep that feed where these plants abound: but it is well known that sheep refuse these aromatics when they have a choice of other pasturage. *Curt. See Account of Sheep Walks in Spain. Gent. Mag. 1764.*





*Linum usitatissimum.*

published by M<sup>r</sup> Woodville, Nov<sup>r</sup> 1. 1791.



latter than the former. This plant has the same sensible qualities as those of the garden thyme, but has a milder, and rather more grateful flavour. " Its essential oil is both in smaller quantity, and less acrid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of that of the other." <sup>b</sup> From this it appears, that the Serpyllum, though possessing similar qualities, is evidently less medicinal than the foregoing species. <sup>c</sup>

<sup>b</sup> Lewis, *M. M.* p. 651.

<sup>c</sup> If this is the same as the Serpyllum of Dioscorides, he is of a different opinion, as he says, " Sylvestre ad medendi usum aptius quam sit hortense." *Εσπευλλον*, ab *εσπω*, according to Pliny, who commends its use in various diseases. *L. xx. c. 22.* See *Diosc. L. iii. c. 46.* *Theoph. 6. hist. 7.* Serpyllum is thus mentioned by Virgil:

Thestylis et rapido fessis messoribus æstu  
Allia serpyllumque herbas contundit olentes.

*Ec. ii. 10.*

## LINUM USITATISSIMUM.

## COMMON FLAX.

*SYNONYMA.* *Linum. Pharm. Lond. & Edinb. Linum arvense. Baub. Pin. p. 214. Linum fativum. Gerard, Emac. p. 556. Park. Theat. p. 1335. Raii Hist. p. 1072. Synop. p. 362. Linum. J. Baub. Hist. iii. p. 451. Hall. Stirp. Helv. n. 836. L. usitatissimum. Hudsf. Flor. Ang. p. 133. Withering. Bot. Arrang. p. 328. Curt. Flor. Lond. <sup>Λινον</sup> Dioscor. L. 2. c. 125. Theoph. 8. Hist. 7.*

*Class* Pentandria. *Ord.* Pentagynia. *Lin. Gen. Plant.* 389.

*Eff. Gen. Ch.* *Cal.* 5-phyllus. *Petala* 5. *Caps.* 5-valvis, 10-locularis.  
*Sem.* solitaria.

*Sp. Ch.* *L.* calycibus capsulisque mucronatis, petalis crenatis, foliis lanceolatis alternis, caule subsolitario.

THE root is annual: the stalk is erect, round, smooth, branched towards the top, and rises about a foot and a half in height:<sup>a</sup> the branches are simple, alternate, and terminated by the flowers, which are solitary, and of a sky-blue colour: the leaves are lance-shaped, acute, sessile, smooth, glaucous, vertical, and alternately scattered over the stalk and branches: the calyx is divided into five segments, which are semi-lance-shaped, pointed, and slightly fringed with small hairs: the corolla is funnel-shaped, consisting of five petals, which are large, obovate, striated, and minutely scalloped at their extremities: the filaments are five, tapering, upright, about the length of the calyx, united at the base, and crowned with simple antheræ: the germen is oval: the five styles are filiform, erect, of the length of the filaments, and furnished with blunt stigmata: the capsule is globular, divided into five valves, and ten cells: the seeds are solitary, glossy, and of a flattish oval shape. It is a native of Britain, and grows in corn fields and sandy pastures: the flowers appear in July.

Flax<sup>b</sup> is an article of such extensive utility for various œconomical purposes, that the plant which furnishes it has obtained the trivial name of *usitatissimum*; and when it is considered that its seeds afford an oil equally useful in arts and in medicine, it may well be deemed an object of national importance. Sensible of this, the Society for the Encouragement of Arts, Manufactures, and Commerce, has laudably endeavoured to promote and extend the cultivation of this plant in Britain, and not without success. But still the greatest part of Flax and Linseed used in this country is the growth of the northern parts of Europe, where it is cultivated most abundantly.

“ The seeds have an unctuous mucilaginous sweetish taste, but no remarkable smell; on expression, they yield a large quantity of oil, which, when carefully drawn without the application of heat, has no

<sup>a</sup> It is remarked by Haselquist, that in Egypt this plant rises with a strong stem to the height of four feet. *Resa til bel. Landet.* p. 462.

<sup>b</sup> The bark of the plant is composed of numerous small tough longitudinal fibres, connected together with a glutinous matter which is dissolved by maceration in water, leaving the naked fibres, which are then to be dried and beaten, by which means the inner membranous parts are easily separated; after this it is combed, and fit to be spun into thread.—It has been observed that the water in which this bark has been macerated, becomes poisonous to cattle, and on this account the practice of steeping it in any running stream or common pond, was prohibited by Statute 33d Henry VIII. cap. 17.



particular taste or flavour: in some properties it differs considerably from most of the other oils of this kind; not congealing in winter; not forming a solid soap with fixed alkaline salts;\* acting more powerfully as a menstruum on sulphureous bodies, than any other expressed oil that has been tried. The seeds, boiled in water, yield a large proportion of a strong flavourless mucilage: to rectified spirit they give out little or nothing.”<sup>c</sup>

Linseed appears to afford but little nourishment, and when taken as food has been found to impair the stomach, and produce great flatulency: effects, which are noticed of these seeds by Galen,<sup>d</sup> and since amply confirmed by Tragus, who relates <sup>e</sup> that, in consequence of a scarcity of corn in Zealand, the inhabitants were urged to the necessity of eating boiled Linseed, which occasioned a remarkable distention of the hypochondria, swellings of the face and other parts, which in several instances proved fatal.

Infusions and decoctions of these seeds, like other vegetable mucilages, are used as emollients or demulcents in hoarsenesses, coughs, and pleuretic symptoms, which frequently prevail in catarrhal affections; they are also recommended in nephritic pains and stranguries: for these purposes, a spoonful of the seeds unbruised is said to be sufficient for a quart of water.<sup>f</sup> The seeds are also much used externally in emollient and maturating cataplasms. The expressed oil is an officinal preparation, and is supposed to be of a more healing and balsamic nature than the other oils of this class;<sup>g</sup> it has therefore been very generally employed in pulmonary complaints, also in colics,<sup>h</sup> and constipations of the bowels.<sup>i</sup>

\* Geoffroy, *Mem. de l'acad. des scien. de Paris l'ann. 1741.*

<sup>c</sup> Lewis, *M. M.* p. 397.

<sup>d</sup> Simp. L. 7. de alim. fac. l. 1. c. 32.

<sup>e</sup> See Raii *Hist.* p. 1073.

<sup>f</sup> Lewis, *l. c.*

<sup>g</sup> This subject is examined on treating of *Olea europæa*. See *Med. Bot.* vol. iii.

<sup>h</sup> See Sydenham, (*Oper. cap. de pleur.* p. 265.) Haen, (*Rat. Med. P. i.* p. 24. *P. ii.* p. 103.) and others.

<sup>i</sup> Haen, *l. c. P. ii.* p. 204. V. Swieten, *Com. vol. ii.* p. 143. Galesky mentions several cases of constipation and colic, proceeding from different causes, successfully treated by this oil, See *Abhandl. v. Miserere u. d. Kräften d. Leinöls in dies. Krankh.* p. 75. seq. Also Lentin, *Beob. einiger Krankh.* p. 149. Vide Murray, *App. Med.* vol. iii. p. 485. seq.—It is used in common with other oils as a vermifuge.

GEOFFROYA



GEOFFROYA INERMIS.      SMOOTH GEOFFROYA,  
Or, BASTARD CABBAGE-TREE.

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*SYNONYMA.* Geoffræa. *Pharm. Edinb.* Geoffræa jamaicensis inermis. *Wright's Description and Use of the Cabbage-bark Tree of Jamaica. Phil. Transf. vol. 67. p. 507.* Geoffroya inermis, foliolis lanceolatis. *Swartz. Prodr. 106.*

*Class* Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant. 876.*

*Eff. Gen. Ch.* Cal. 5-fidus. *Drupa* ovata. *Nucleus* compressus.

*Sp. Ch.* G. inermis, foliolis lanceolatis. *Swartz. l. c.*

THIS tree rises to a considerable height, and towards the top sends off several branches: the wood is hard enough to admit of being polished: the external bark is smooth and grey, internally it is black and furrowed: the leaves are pinnated, consisting of several pairs of pinnæ, which are lance-shaped, pointed, veined, smooth, standing in pairs upon short footstalks, but with an odd one at the end: the flowers appear in clusters upon large branched spikes: the calyx is bell-shaped, and divided into five short obtuse segments: the corolla is of the papilionaceous kind, of a pale rose colour, consisting of a *vexillum*, which is roundish, concave, and notched at the apex; two *alæ*, which are oblong, obtuse, concave, and somewhat shorter than the *vexillum*, and an obtuse divided *carina*: the filaments are ten, nine of which are united at the base: the antheræ are simple, and roundish: the germen is oval, and furnished with a tapering curved style, which is terminated by a hooked stigma: the fruit is pulpy, resembling a small plum, and containing a hard nut or seed, separated into two valves, and marked on each side with a longitudinal furrow.

This tree is a native of Jamaica, where it is distinguished by the name of Cabbage-bark tree, or Worm-bark tree: the bark, which has a mucilaginous and sweetish taste, and a disagreeable smell, was first



*Geoffroya*

*inermis.*

Published by D<sup>r</sup> Woodville Nov<sup>r</sup> 1, 1791.







first noticed as a vermifuge by Mr. Peter Duguid.<sup>a</sup> Since that time several accounts of its anthelmintic virtues have been given in the Medical Commentaries by different authors: but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree, both in respect to its medical and botanical characters. Linnæus enumerates only one species of this genus, which is called after Geoffroy, viz. *G. spinosa*; and, in contradistinction to this, Dr. Wright, on discovering that the plant here figured belonged to the same family, and was destitute of spines, very properly gave it the trivial name of *inermis*, and it has since been recognized and confirmed in this name upon the authorities of Swartz and Aiton, though, it is not yet admitted into any of the editions of the *Systema Vegetabilium* of Linnæus. This species was first introduced into this country by Messrs. Kennedy and Lee, who cultivated it at Hammer-smith about the year 1778. According to Dr. Wright, the bark of this tree is powerfully medicinal, and its anthelmintic effects have been established at Jamaica by long experience.

It may be given in different forms, as in decoction, syrup, powder, and extract; and the manner of preparing and exhibiting these are thus stated by Dr. Wright:

“ The decoction. Take fresh-dried or well-preserved cabbage-bark, one ounce. Boil it in a quart of water, over a slow fire, till the water is of an amber colour, or rather of deep coloured Madeira wine; strain it off, sweeten it with sugar, and let it be used immediately, as it does not keep many days.

“ Syrup of Cabbage-bark. To any quantity of the above decoction add a double portion of sugar, and make a syrup. This will retain its virtues for years.

“ The extract of cabbage-bark is made by evaporating the strong decoction in *balneo mariæ* to the proper consistence; it must be continually stirred, as otherwise the resinous part rises to the top, and on this probably its efficacy depends.

<sup>a</sup> This author thinks that the inhabitants of Jamaica are more subject to worms, “ on account of their *sweet viscid bread-kind*, to wit, plantains, yams, bananas, sweetish potatoes, &c.” and considers it particularly fortunate, that the island supplies them with this bark, which “ appears to be the most powerful vermifuge yet known, for it frequently brings away as many worms by stool as would fill a large hat.” See *Essays and Observations Physical and Literary*, vol. ii. p. 264.

“ The powder of well-dried bark is easily made, and looks like jallap, though not of equal specific gravity.

“ This bark, like most other powerful anthelmintics, has a narcotic effect; and on this account it is always proper to begin with small doses, which may be gradually increased till a nausea is excited, when the dose for that patient is ascertained. But by frequent use we can in common determine the dose, though we chuse to err rather on the safe side.

“ A strong healthy grown person may, at first, take four table spoonfuls of the decoction or syrup, three grains of the extract, or thirty grains of the powder for a dose.

“ A youth, three table spoonfuls of the decoction or syrup, two grains of extract, or twenty grains of powder.

“ A person of ten years of age, two table spoonfuls of the decoction or syrup, one grain and a half of extract, or fifteen grains of the powder.

“ Children of two or three years old, a table spoonful of the decoction or syrup, one grain of extract, or ten grains of the powder. Children of a year old, half the quantity.

“ These may be increased, as above observed, till a nausea is excited, which will depend on the strength, sex, and habit of body of the patient.

“ Care must be taken that cold water be not drank during the operation of this medicine, as it is in this case apt to occasion sickness, vomiting, fever, and delirium. When this happens, or when an over large dose has been given, the stomach must be washed with warm water: the patient must speedily be purged with Castor-oil, and use plenty of lime-juice beverage for common drink; vegetable acid being a powerful antidote in this case, as well as in an over dose of opium.

“ The decoction is what is mostly given here, and seldom fails to perform every thing that can be expected from an anthelmintic medicine, by destroying worms in the intestines, and bringing them away in great quantities. By frequent use, however, these animals become familiarized, and we find it necessary to intermit it, or have recourse to others of inferior merit.

“ The







*Pastinaca Opoponax*

Published by D. Woodville, Nov. 1791.

“ The writers of the Edinburgh Medical Commentaries take notice, that the decoction of cabbage-bark always excites vomiting. We find no such effect from it here, and may account for it by their receiving it in a mouldy state. A syrup, therefore, is given there with better effect. They observe also that it has a diuretic virtue, which we have not taken notice of here.

“ This bark purges pretty briskly, especially in powder, thirty or forty grains working as well as jallap by stool; but in this way it does not seem to kill worms so well as in decoction.

“ Five grains of the extract made a strong man sick, and purged him several times; but, by frequent use, he took ten grains to produce at length the same effect.

“ It must not be concealed that fatal accidents have happened from the imprudent administration of this bark, chiefly from over-dosing the medicine. But this cannot detract from the merit of the cabbage-bark, since the best medicines, when abused, become deleterious; and even our best aliments, in too great quantity, prove destructive. Upon the whole, the cabbage-bark is a most valuable remedy, and I hope will become an addition to the *materia medica*.”

PASTINACA OPOPANAX.

OPOPANAX,  
Or, ROUGH PARSNEP.

Opopanax, *gummi-resina*. *Pharm. Lond.*

*SYNONYMA.* Panax costinum. *Bauh. Pin.* p. 156. Panax Heracleum. *Morris Hist. t. iii.* p. 315. *Boccone, Journ. des Sçav.* 1676. p. 28. *Gerard Emac.* p. 1003. *Raii Hist.* p. 410. Heracleum alterum, sive peregrinum Dodonæi. *Park. Theat.* p. 948. Pastinaca sylvestris altissima. *Tourn. Inst.* p. 319. P. Opopanax. *Gouan, Illustr.* 19. t. 13, 14.

*Glass*



*Class* Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 362.

*Eff. Gen. Ch.* *Fructus* ellipticus, compresso-planus. *Petala* involuta, integra.

*Sp. Ch.* P. foliis pinnatis: foliolis basi antica excisis. *Syst. Veg.*

THE root is perennial, thick, fleshy, tapering like the garden parsnep: the stalk is strong, branched, rough towards the bottom, and rises seven or eight feet in height: the leaves are pinnated, consisting of several pairs of pinnæ, which are oblong, serrated, veined, and towards the base appear unformed on the upper side: the flowers are small, of a yellowish colour, and terminate the stem and branches in flat umbels: the general and partial umbels are composed of many radii: the general and partial involucra are commonly both wanting: all the florets are fertile, and have an uniform appearance: the petals are five, lance-shaped, and curled inwards: the five filaments are spreading, curved, longer than the petals, and furnished with roundish antheræ: the germen is placed below the corolla, supporting two reflexed styles, which are supplied with blunt stigmata: the fruit is elliptical, compressed, divided into two parts, containing two flat seeds, encompassed with a narrow border. It is a native of the South of Europe, and flowers in June and July.

This species of Parsnep was cultivated in 1731 by Mr. P. Miller, who observes that its "roots are large, sweet, and accounted very nourishing," therefore recommended for cultivation in kitchen-gardens.<sup>a</sup> It bears the cold of our climate very well, and commonly matures its seeds, and its juice here manifests some of those qualities which are discovered in the officinal opopanax;<sup>b</sup> but it is only in the warm regions of the East, and where this plant is a native, that its juice concretes into this gummy resinous drug. Opopanax is obtained by

<sup>a</sup> See his *Diæ.*

<sup>b</sup> Alston says, "with regard to these plants growing here, I venture to say, that, if their juice be not the opopanax, it is very like it." *M. M. v. ii. p.* 443.

<sup>c</sup> We find no account of the manner of obtaining this drug since that mentioned by Dodonæus, *Pempt.* (p. 309.) & Boccone, (l. c.)

means



means of incisions made at the bottom of the stalk of the plant, from whence the juice gradually exudes,<sup>c</sup> and by undergoing spontaneous concretions, assumes the appearance under which we have it imported from Turkey and the East-Indies, viz. "sometimes in little round drops or tears, more commonly in irregular lumps, of a reddish yellow colour, on the outside with specks of white, internally of a paler colour, and frequently variegated with large white pieces."

"This gummy-resin has a strong disagreeable smell, and a bitter acrid somewhat nauseous taste. It readily mingles with water, by triture, into a milky liquor, which on standing deposits a portion of resinous matter, and becomes yellowish: to rectified spirit it yields a gold-coloured tincture, which tastes and smells strongly of Opopanax. Water distilled from it is impregnated with its smell, but no essential oil is obtained on committing moderate quantities to the operation."<sup>d</sup>

Opopanax has been long employed by physicians, and esteemed for its attenuating, deobstruent, and aperient virtues; but as it is commonly prescribed in combination with other medicines, these qualities are by no means ascertained, nor do its sensible qualities indicate it to be a medicine of much power. Dr. Cullen classes it with the antispasmodics; it is however less fetid than galbanum, though more so than ammoniacum, and therefore may be supposed to have some affinity to a union of these two. It has commonly been given in hypochondriacal affections, visceral obstructions, menstrual suppressions, and asthmas, especially when connected with a phlegmatic habit of body. It has no place in the Mat. Med. of the Edinburgh Pharmacopœia, but, by the London College it is directed in the pillulæ e gummi.

<sup>d</sup> Lewis, *M. M.* p. 468.

# RHAMNUS CATHARTICUS. PURGING BUCKTHORN.

*SYNONYMA.* Spina cervina. *Pharm. Lond. & Edin.* <sup>8vo</sup> Rhamnus catharticus. *Bauh. Pin.* p. 478. *Raii Hist.* p. 1625. *Synop.* p. 466. *Hudson. Flor. Ang.* p. 98. *Withering. Bot. Arrang.* p. 239. *Flor. Dan.* 850. Rhamnus solutivus. *Gerard Emac.* p. 1337. Rhamnus solutivus five Spina infectoria vulgaris. *Park. Theat.* p. 243. Rhamnus foliis spinosis, ovato-lanceolatis, ferratis. *Hal. Stirp. Helv. n.* 824.

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 265.

*Eff. Gen. Ch.* Cal. tubulosus: squamis stamina munientibus. *Cor.* nulla. *Bacca.*

*Sp. Ch.* R. spinis terminalibus, floribus quadrifidis dioicis, foliis ovatis, caule erecto.

THIS shrub is covered with dark brownish bark, divided into many branches, beset with strong spines, and usually rises seven or eight feet in height: the leaves are nearly elliptical, serrated, veined, and stand on shortish footstalks: the flowers are commonly male and female upon different plants, small, greenish, and placed in clusters upon simple peduncles: the calyx supplies the place of a corolla, it is funnel-shaped, of a pale green colour, and divided at the extremity into four spreading pointed segments: the filaments are usually four, arising from the base of a small convex scale, very short, and furnished with round antheræ: the germen is round, and supports a slender style, terminated by a trifid stigma: the fruit is a round black berry, containing four seeds, which are compressed on one side, and protuberant on the other. It is a native of Britain, usually growing in woods and hedges near brooks, flowering in May and June, and ripening its seeds about the end of September.

The fruit or berries of this Shrub, which have been long received into the *Materia Medica*, are about the size of a small pea, and when  
ripe



*Rhamnus cathartica.*

Published by D. Woodville, An. 1791.





ripe of a shining black colour: they contain a pulpy deep green juice,<sup>a</sup> which has a faint unpleasant smell, and a bitterish, acrid, nauseous taste: they operate briskly by stool, and hence the plant derives the trivial name *catbarticus*:<sup>b</sup> their purgative effects are constantly accompanied with considerable thirst, and dryness of the mouth and throat, and frequently with severe griping of the bowels, especially unless some diluting liquor be plentifully drunk immediately after taking them.

“ The dose is said to be about twenty of the fresh berries in substance; twice or thrice that number in decoction: a dram or a dram and a half of the dried berries; an ounce of the expressed juice; or half an ounce of the rob or extract, obtained by inspissating the juice.”<sup>c</sup> The juice made into a syrup is the officinal preparation, and in this state it has been generally preferred by physicians, who found that in doses of one ounce to two it proved a very powerful purgative, and was therefore much employed as a hydragogue.<sup>d</sup> Few patients however are able to bear a frequent repetition of this medicine; and even Sydenham, who was partial to the purgative treatment of hydro-pical diseases, found that other cathartics more effectually answered this purpose: at present it is rarely prescribed except in conjunction with other medicines of this class.

The inner bark, like that of Elder, is said to be a strong cathartic, and to excite vomiting.<sup>e</sup>

<sup>a</sup> This juice is called by the French *Verd de Vessie*, or *Sap Green*, and is used for painting or staining paper: that of the unripe berries is yellow, and when the berries are gathered late in the autumn, the juice is purple. It is also used as a dye. See *Lin. Flor. Suec.* p. 72.

<sup>b</sup> It is reported that the flesh of those birds which feed upon these berries is purgative. Homberg, *Mem. de l'Acad. des Sc. de Paris*, 1712. p. 9.

<sup>c</sup> Lewis, *M. M.* p. 612.

<sup>d</sup> Riverius, *Prax. lib. ii. cap. 6.* p. 44.—Boerhaave, *De virib. med.* p. 308.—Chomel, *Usuell. tom. i.* p. 19.—Sydenham, *Opera*, p. 488.

<sup>e</sup> Allioni, *Fl. Pedemont, t. ii.* p. 130.

## TANACETUM VULGARE.

## COMMON TANSY.

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*SYNONYMA.* Tanacetum. *Pharm. Lond. & Edinb. Raii Hist.* p. 365. *Synop.* p. 188. *Gerard Emac.* p. 650. Tanacetum vulgare luteum. *Bauh. Pin.* p. 132. Tanacetum vulgare. *Park. Theat.* p. 80. *Hudson Flor. Ang.* p. 357. *Withering. Bot. Arrang.* p. 887. *Flor. Dan.* p. 871. Tanacetum foliis pinnatis, pinnis semipinnatis, acute dentatis. *Hal. Stirp. Helv. n.* 132.

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 944.

*Eff. Gen. Ch.* *Recept.* nudum. *Pappus* submarginatus. *Cal.* imbricatus, hemisphæricus. *Cor.* radii obsoletæ, 3-fidæ.

*Sp. Ch.* T. foliis bipinnatis incisis ferratis.

THE root is perennial, long, creeping, and fibrous: the stem is strong, erect, often reddish, branched towards the top, smooth, beset with leaves, and rises two or three feet in height: the leaves are doubly pinnated; lesser pinnæ, numerous, notched, or deeply ferrated; principal ribs edged with leafy clefts: the flowers are yellow, compound, and produced in a corymbus: the calyx consists of numerous small imbricated squamæ, forming a common perianthum of an hemispherical shape: *the florets at the disc are hermaphrodite*, tubular, divided at the mouth into five pointed segments: *the florets at the border are female*, and cut at the brim into three teeth: the filaments are five, very short, slender, and furnished with antheræ, which unite and form a hollow cylinder: the germen in both the hermaphrodite and female florets is oblong, small, and supports a filiform style, furnished with a cloven reflexed stigma: the seeds are naked, solitary, and of an oblong shape: the receptacle is convex and naked. It is a native of England, growing in moist pastures, borders of corn fields, roads, and rivers, and flowering in July and August.

This





*Tanacetum vulgare.*

Published by D. Woodville Nov. 1 1791



This species, of which there is a variety, *foliis crispis*, the curled Tanfy, which is said to be more grateful to the stomach than the common Tanfy, and has therefore been preferred by some for medical purposes ; but as the sensible qualities of the latter seem most powerful, we judge it to be most efficacious.

“ The leaves and flowers of Tanfy have a strong, not very disagreeable smell, and a bitter somewhat aromatic taste : the flowers are stronger though rather less unpleasant than the leaves. They give out their virtue both to water and spirit, most perfectly to the latter : the tincture made from the leaves is of a fine green ; from the flowers of a bright pale yellow colour. Distilled with water they yield a greenish-yellow essential oil, smelling strongly of the herb : the remaining decoction, inspissated, affords a strong bitter sub saline extract. The spirituous tinctures give over also, in distillation, a considerable part of their flavour ; a part of it remaining along with the bitter matter, in the extract.”<sup>b</sup>

According to Bergius, the virtues of Tanfy are tonic, stomachic, anthelmintic, emmenagogue, and resolvent ;<sup>c</sup> qualities usually attributed to bitters of the warm or aromatic kind ; many of which we shall soon have occasion to notice under the genus *Artemesia*, which is closely allied to that of *Tanacetum* in its botanical character. Tanfy has been much used as a vermifuge, and testimonies of its efficacy are given by many respectable physicians : not only the leaves but the seeds have been employed with this intention, and substituted for those of *Santonium*.

We are told by Dr. Clark, that in Scotland Tanfy was found to be of great service in various cases of gout ;<sup>f</sup> and Dr. Cullen, who afterwards was informed of the effects it produced upon those who had used the herb for this purpose, says, “ I have known several who have taken it without any advantage, and some others who reported that they had been relieved from the frequency of their gout.”<sup>g</sup>

<sup>a</sup> See *C. Bauh. l. c.*    <sup>b</sup> *Lewis, M. M. p. 633.*    <sup>c</sup> *Mat. Med. p. 664.*

<sup>d</sup> Hoffman speaks highly of its efficacy. See *Med. Syst. T. 4. P. 2. p. 333.* See also *Supp. p. 87.*    *Rosenstein, Bskd. cap. de vermibus.*    <sup>e</sup> The latter however are much more bitter and aromatic. See *Lewis, l. c.*    <sup>f</sup> Vide, *Essays and Obs. physical and lit. vol. iii. p. 438.*    <sup>g</sup> *Mat. Med. vol. ii. p. 80.*



Tanfy is also recommended in the hysteria, especially when this disease is supposed to proceed from menstrual obstructions.

This plant may be given in powder to the quantity of a dram, or more, for a dose ; but it has been more commonly taken in infusion, or drunk as tea.

DICTAMNUS ALBUS.

WHITE FRAXINELLA,  
Or, BASTARD DITTANY.

*SYNONYMA.* Dictamnus albus. *Pharm. Edinb.* Dictamnus albus sive Fraxinella. *Baub. Pin. p. 222.* Fraxinella. *Gerard Emac. p. 1245.* Morris, *Hist. iii. p. 456.* Tourn. *Inst. p. 430.* Fraxinella flore purpureo & albo. *Park. Parad. p. 333.* Fraxinella, &c. *Raii Hist. p. 698.* *J. Baub. iii. p. 494.* *Hal. Stirp. Helv. n. 1029.* *Miller's Figures, tab. 123.* *Jacquin, Flor. Aust. tab. 428.* <sup>a</sup> Flore niveo. <sup>β</sup> Flore rubro.

*Class* Decandria. *Ord.* Monogynia. *Lin. Gen. Plant. 522.*

*Eff. Gen. Ch.* *Cal.* 5-phyllus. *Petala* 5, patula. *Filamenta punctis glandulosis adspersa.* *Caps.* 5, coalitæ.

*Sp. Ch.* D. foliis pinnatis caule simplici. *Supp. p. 232.*

THE root is perennial, and sends off many long spreading fibres: the leaves are pinnated and large; pinnæ elliptical, veined, pointed, slightly serrated, stand in pairs, and are terminated by an odd one, which is the largest: the stalk is round, smooth, erect, and rises about a foot and a half in height: the bractæ are stipular, and placed singly at the base of the peduncles: the flowers appear from May till July; they are numerous, large, white, terminate the stem, and stand alternately upon long peduncles, which towards the top are bent downwards, and beset with small glands: the corolla is composed of five white petals, of an obversely oval shape, and inserted into the  
calyx



*Dictamnus albus*

Published by D. Woodville Dec. 1 1791





calyx by long claws: the calyx is rough, and divided into five short segments: the filaments are ten, about the length of the corolla, marked with minute glands, and furnished with large antheræ: the germen is pentangular: the style short, tapering, and supplied with a pointed stigma: the seed vessels are five united capsules, each of which contains two small oval seeds.

This plant, which is commonly called *Fraxinella*,\* is a native of France, Germany, and Italy. It was cultivated here by Gerard, and frequently adorns the borders of our flower gardens, especially the red variety, which is the handsomer plant. It emits a fragrant bituminous odour, which seems to be the essential oil of the herb, secreted by numerous small glands, with which the peduncles and filaments are abundantly furnished. These odorous effluvia are so very inflammable, that on the application of flame, they take fire, especially on the evening of a hot dry day.<sup>a</sup>

The root, which is the part directed for medicinal use, "when fresh, has a moderately strong, not disagreeable smell, but as met with in the shops it has scarcely any. To the taste it discovers a pretty strong and very durable bitterness, which is taken up both by watery and spirituous menstrua, and on inspissating the filtered tinctures, remains entire in the extracts: the aqueous extract is in much larger quantity than the spirituous, and proportionably weaker in taste."<sup>b</sup>

Formerly this root was used as a stomachic, tonic, and alexipharmic, and was supposed to be a medicine of much efficacy in removing uterine obstructions, and destroying worms;<sup>c</sup> but its medicinal powers became so little regarded by modern physicians, that it had fallen almost entirely into disuse, till Baron Stœrck brought it into notice by publishing several cases of its success,<sup>d</sup> viz. in tertian intermittents, worms, (*lumbrici*) and menstrual suppressions. In all these cases he employed the powdered root to the extent of a scruple twice a day.

\* From the resemblance its leaves have to those of the ash.

<sup>a</sup> Vide Du Hamel, *Phys. des arbres*, tom. i. p. 150. Nollet, *Cours. de Phys.* vol. i. p. 300. <sup>b</sup> Lewis, *M. M.* p. 274. <sup>c</sup> See Geier, *Diſtamnographia*. Buchner *Diſſ. de Fraxinella*. Matthioliſ ſays, "ad multa utilis eſt." p. 523. <sup>d</sup> Vide libell. de *Flammula Jovis*, *Diſtamno albo*, &c.

He also made use of a tincture, prepared of two ounces of the fresh root digested in fourteen ounces of spirit of wine; of this twenty to fifty drops, two or three times a day, were successfully prescribed in epilepsies, &c. and when joined with steel, this root, we are told, was of great service to chlorotic patients.

The Dictamnus undoubtedly is a medicine of considerable power; but, notwithstanding the account of it given by Stoerck, who seems to have paid little attention to its *modus operandi*, we may still say with Haller, “Nondum autem vires pro dignitate exploratus est.” l. c.

## CANELLA ALBA.

## LAUREL-LEAVED CANELLA.

*SYNONYMA.* Canella alba. *Pharm. Lond. & Edinb.* Winterania Canella. *Lin. Supp. p.* 247. Arbor baccifera laurifolia aromatica, fructu viridi calyculato racemoso. *Sloane's Jamaica, vol. ii. p.* 87. *t.* 191. *f.* 2. *Catesby's Carolina, vol. ii. p.* 50. *t.* 50. Canella foliis oblongis obtusis nitidis, racemis terminalibus. *Browne's Jamaica, p.* 275. *t.* 27. *f.* 3. Cassia lignea Jamaicensis Laureolæ foliis subcinereis cortice piperis modo acri. *Plukenet Almag. p.* 89. *t.* 81. *f.* 1. *Lin. Spec. Plant. p.* 636. *Conf. Swartz. Botanical History of the Canella Alba. Linnean Transactions. p.* 96.

*Class* Dodecandria. *Ord.* Monogynia. *Lin. Gen. Winterania. p.* 598.

*Ess. Gen. Ch.* *Cal.* 3-lobus. *Pet.* 5. *Antheræ* 16, adnatæ nectario urceolato. *Bacca* 3-ocularis. *Sem.* 2.

THE stem of this tree rises very straight, from ten to fifty feet in height, and branched only at the top; it is covered with a whitish bark, by which it is easily distinguished at a distance from other trees in the woods where it grows: the leaves are placed upon short footstalks, and stand alternately: they are oblong, obtuse, entire, of a dark shining





*Canella alba.*

Published by D. Woodville Dec 1 1791





shining green hue, and thick like those of the laurel: the flowers are small, seldom opening, of a violet colour, and grow in clusters at the tops of the branches upon divided footstalks: the calyx is monophyllus, divided nearly to its base into three lobes, which are roundish, concave, incumbent, green, smooth, membranous, and persistent: the corolla is composed of five petals, which are much longer than the calyx, sessile, oblong, concave, erect, and two of them are somewhat narrower than the other three: the nectary is pitcher-shaped, of the length of the petals, and supports the antheræ instead of filaments, which are wanting: the antheræ are twenty-one, linear, parallel, distinct, single valved, and fixed longitudinally to the nectary: the germen is ovate, placed above the insertion of the corolla, and supports a cylindrical style, furnished with two obtuse rough convex stigmata: the fruit is an oblong berry, containing four kidney-shaped seeds of unequal size.\*

It appears a little surprising, that the Canella, which is a native of the West Indies, and of which figures have been given by Plukenet, Sloane, Catesby, Browne,<sup>a</sup> and others, should have been generally confounded with the tree which produces the cortex winteranus: even the younger Linnæus, who describes this tree under the genus *Winterania*, from a specimen in the herbarium of Montin, has acknowledged that he could not discover how far it differed from the *Drimys*, or *Wintera* of Murray.<sup>b</sup> The present figure, which is given on the authority of Dr. Swartz, who presented it to the Linnean Society, accompanied with a botanical history of the tree,|| will, we hope, re-

\* "The whole tree (according to Dr. Swartz) is very aromatic, and when in blossom perfumes the whole neighbourhood. The flowers dried, and softened again in warm water, have a fragrant odour, nearly approaching to that of musk. The leaves have a strong smell of laurel. The berries, after having been some time green, turn blue, and become at last of a black glossy colour, and have a faint aromatic taste and smell. They are, when ripe, as well as the fruit of several kinds of laurel, very agreeable to the *White-bellied and Bald-pate Pigeons*, (*Columba Jamaicensis* & *leucocephala*) which feeding greedily upon them acquire that peculiar flavour so much admired in the places where they are found." l. c.

<sup>a</sup> Swartz observes, that the only tolerable figure among these is that of Browne, l. c.

<sup>b</sup> "Quantum differat a genere *Drimys* nondum bene scio." *Supp. p.* 247.

<sup>c</sup> *Vide l. c.*

|| Read before the Linnean in December 1788.

move every doubt concerning the true characters of *Canella alba*; and by comparing the annexed plate with that published of the *Winterana aromatica*, in the fifth volume of *Medical Observations and Inquiries* by Drs. Fothergill and Solander,|| it may be observed how far the tree, which produces the cortex winteranus, differs from that of our plant, the bark of which is the officinal *Canella alba*. The latter appears from Clusius to have been first introduced into Britain about the year 1600;† the former was known in England twenty years before, and took its name from William Winter, captain of one of the ships which accompanied Sir Francis Drake to the Straits of Magellan, from whence he brought this bark to Europe in 1579. John Bauhin appears to be the first<sup>d</sup> who confounded the names of these barks, by styling the cortex winteranus *Canella alba*; and as Sir Hans Sloane, who has given a separate description of both trees, and was sensible of a difference in the taste of their barks, seems to insinuate that this might depend upon the place of growth, his remarks did not wholly remove the error.<sup>e</sup>

Professor Murray, in his 14th edition of the *Systema Vegetabilium*, was the first who made a distinct genus of *Canella*, and thus corrected the mistake of Linnæus,‡ who, disregarding the evidence of the old botanists,\* combined two genera under the name of *Laurus Winterana*;<sup>f</sup> but he afterwards made it a separate genus, and called it *Winterania*,<sup>g</sup> a name by which it has been long universally, though improperly distinguished. Mr. Aiton, who has followed Murray in considering the *Canella*, as differing generically from the tree named after Winter, informs us, that it was cultivated by Mr. Phillip Miller, at Chelsea, in 1739.<sup>h</sup>

|| "Some Account of the Cortex Winteranus, or Magellanicus, by Dr. John Fothergill, with a Botanical Description by Dr. Solander, and some Experiments by Dr. Morris." p. 41.

† He says, "Ante paucos annos (1605) cœpit exoticus cortex inferri, cui nomen Canellæ albæ indiderunt." *Exot. lib. iv. cap. 4.*

<sup>d</sup> *Hist. vol. i. p. 460.*

<sup>e</sup> *Phil. Transf. No. 192. p. 462.*

‡ P. 443. Though Murray has here said, "Cortex hujus est *Canella alba officinarum*," yet the London College has not availed itself of this authority, no botanical reference being given to *Canella alba* in the new pharmacopœia.

\* Among these we may notice Plukenet, who, speaking of these two trees, says, "Varie inter se plurimum diversæ plantæ per illarum ignorationem plane confunduntur." *Almag. Mant. p. 40.*

<sup>f</sup> *Sp. Plant. ed. 1. p. 371.* <sup>g</sup> See his *Hort. Cliff. 448.* and *Mat. Med.*

<sup>h</sup> *Hort. Kew. vol. ii. p. 125.*

The



The officinal *Canella alba* is the bark of the branches of this tree, freed from its outward covering, and dried in the shade. It is brought to Europe in long quills, which are about three quarters of an inch in diameter, somewhat thicker than cinnamon, and both externally and internally of a whitish or light brown colour, with a yellowish hue, and commonly intermixed with thicker pieces, which are probably obtained from the trunk of the tree. This bark in taste is moderately warm, aromatic, and bitterish; its smell is agreeable, and resembles that of cloves. Its virtues are extracted most perfectly by proof spirit. "In distillation with water it yields an essential oil of a dark yellowish colour, of a thick tenacious consistence, difficultly separable from the aqueous fluid, in smell sufficiently grateful, though rather less so than the bark itself: the remaining decoction, inspissated, leaves an extract of great bitterness, in consistence not uniform, seemingly composed of a resinous and gummy matter, imperfectly mixed. On inspissating the spirituous tincture, the spirit which distils has no great smell or taste of the *Canella*, but is so far impregnated with its more volatile oil as to turn milky on the admixture of water: the remaining extract retains the bitterness of the bark, but has little more of its warmth or flavour than the extract made with water."<sup>1</sup>

The use of *Canella alba* now supersedes that of the old bark of Winter, on the authority of both the London and Edinburgh pharmacopœias. It has been supposed to possess a considerable share of medicinal power, and is said to be an useful medicine in the scurvy, and some other complaints; but it is now considered merely in the character of an aromatic, and like many of the spices is chiefly employed for the purpose of correcting and rendering less disagreeable the more powerful and nauseous drugs. It is therefore an ingredient in the pulv. aloet. Pharm. Lond. and in the tinctura amara, vinum amarum, vinum rhei, &c. of the Pharm. Edinb. Swartz tells us that "this bark, together with the fruit of *Capficum*, was formerly a common ingredient in the food and drink of the Caribs, the ancient natives of the Antilles; and even at present it makes a necessary addition to the meagre pot of the negroes." l. c.

<sup>1</sup> Lewis, *M. M.* p. 186.

## SCILLA MARITIMA.

## SCILLA MARITIMA.

OFFICINAL SQUILL,  
Or, SEA ONION.

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*SYNONYMA.* Scilla. *Pharm. Lond. & Edinb.* Scilla vulgaris radice rubra. *Baub. Pin. p. 73. Raii Hist. p. 1164.* Scilla rubra, five Pancratium verum. *Park. Parad. p. 133.* Scilla rubra magna vulgaris. *J. Baub. Hist. ii. p. 615.* Pancratium Clusii. *Gerard Emac. p. 172.* Ornithogalon maritimum, feu scilla radice rubra. *Tourn. Inst. p. 381.*  $\beta$  Scilla radice alba. *Baub. l. c.*

*Class* Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 419.

*Eff. Gen. Ch.* *Cor.* 6-petala, patens, decidua. *Filamenta* filiformia.

*Sp. Ch.* *S. nudiflora*, bracteis refractis.

THE root is large, perennial, bulbous, coated, of a reddish hue, abounding with a tenacious juice, and furnished with many white fibres, which issue from its base: the stem is round, smooth, succulent, and rises two or three feet in height: the leaves are sword-shaped, radical, smooth, pointed, long, and of a deep green colour: the flowers are whitish, produced in a long close spike upon purplish peduncles, and appear in April and May: the bractæ are linear, twisted, and deciduous: it has no calyx: the corolla is composed of six petals, which are ovate, patent, with a reddish mark in the middle: the filaments are six, tapering, shorter than the corolla, and furnished with oblong antheræ, placed transversely: the germen is roundish, supporting a simple style about the length of the filaments, and furnished with a simple stigma: the capsule is oblong, smooth, marked with three furrows, and divided into three cells, which contain many roundish seeds.

This plant is a native of Spain, Sicily, and Syria, growing in sandy situations on the sea coast, and hence the name *maritima*. It was first cultivated in England at the botanic garden at Oxford about the year 1648.<sup>a</sup> The red rooted variety has been supposed to be more

Vide, *Hort. Oxon. ed. 1. p. 48.*

efficacious





*Scilla maritima*

Published by D. Woodville Dec. 1791.





efficacious than the white, and is therefore still preferred for medicinal use:<sup>b</sup> it is to the taste very nauseous, intensely bitter, and acrimonious, but without any perceptible smell. “ Water, wine, proof spirit and rectified spirit, extract the virtues both of the fresh and the dry root. Nothing rises in distillation with any of these menstrua, the entire bitterness and pungency of the Squill remaining concentrated in the inspissated extracts: the spirituous extract is in smaller quantity than the watery, and of a proportionably stronger almost fiery taste.”

“ Alkalines considerably abate both the bitterness and acrimony of the Squill: vegetable acids make little alteration in either, though the admixture of the acid taste renders that of the Squill more supportable. These acids extract its virtue equally with watery or spirituous menstrua.”<sup>c</sup>

The root of the Squill, which appears to have been known as a medicine in the early ages of Greece,<sup>d</sup> and has so well maintained its character ever since, as to be deservedly in great estimation, and of very frequent use at this time, seems to manifest a poisonous quality to several animals. In proof of this, we have the testimonies of Hillefeld,<sup>e</sup> Bergius,<sup>f</sup> Vogel,<sup>g</sup> and others. Its acrimony is so great that even if much handled it exulcerates the skin; and if given in large doses, and frequently repeated, it not only excites nausea, tormina, and violent vomitings, but it has been known to produce strangury, bloody urine, hypercatharsis, cardialgia, hæmorrhoids, convulsions, with fatal inflammation and gangrene of the stomach and bowels.<sup>h</sup> But as many of the more active articles of the materia medica, by injudicious administration, become equally deleterious, these effects of the Scilla do not derogate from its medicinal virtues; on the contrary, we feel ourselves fully warranted in representing this drug, under proper management, and in certain cases and constitutions, to be a medicine of great

<sup>b</sup> It may be observed, that this red colour is only confined to the outer coats of the root.

<sup>c</sup> Lewis, *M. M.*

<sup>d</sup> Some refer its introduction to medical use to Epimenides; others to Pythagoras. Vide Haller, *Bib. Bot.* p. 12. It was sometimes called *Σκυλλα*, and sometimes *Παγκρατιον* and is noticed by Dioscorides, Hippocrates, Galen, Aëtius, Celsus, Pliny, Cælius Aurelianus, and the Arabian physicians.

<sup>e</sup> *Diff. experim. circa venena*, p. 12. <sup>f</sup> *Mat. Med.* p. 265. <sup>g</sup> *V. in Hillef.* p. 18.

<sup>h</sup> See Lange, *de remed. Brunf. domest.* p. 176. Also Quarin, *Animadv. pract.* p. 166.

practical utility, and real importance in the cure of many obstinate diseases. Its effects, as stated by Bergius, are incidens diuretica, emetica, subpurgans, hydragoga, expectorans, emmenagoga.<sup>1</sup> In hydropical cases it has long been esteemed the most certain and effectual diuretic with which we are acquainted; and in asthmatic affections,<sup>k</sup> or dyspnœa, occasioned by the lodgment of tenacious phlegm, it has been the expectorant usually employed.<sup>1</sup> The Squill, especially in large doses, is apt to stimulate the stomach, and to prove emetic; and it sometimes acts upon the intestines, and becomes purgative; but when these operations take place, the medicine is prevented from reaching the blood vessels and kidneys, and the patient is deprived of its diuretic effects; which are to be obtained by giving the Squill in smaller doses, repeated at more distant intervals,<sup>m</sup> or by the joining of an opiate to this medicine, which was found by Dr. Cullen to answer the same purpose. The Dr. further observes, that from a continued repetition of the Squill, the dose may be gradually increased, and the intervals of its exhibition shortened; and when in this way the doses come to be tolerably large, the opiate may be most conveniently employed to direct the operation of the Squill more certainly to the kidneys. "In cases of dropsy; that is, when there is an effusion of water into the cavities, and therefore that less water goes to the kidneys, we are of opinion, that neutral salt, accompanying the Squill, may be of use in determining this more certainly to the kidneys: and whenever it can be perceived that it takes this course, we are persuaded that it will also be always useful, and generally safe during the exhibition of the Squills to increase the usual quantity of drink."<sup>n</sup>

The diuretic effects of Squills have been supposed to be promoted by the addition of some mercurial; and the less purgative preparations of mercury, in the opinion of Dr. Cullen, are best adapted to this purpose; he therefore recommends a solution of corrosive sublimate, as being more proper than any other, because most diuretic.

<sup>1</sup> *L. c.* <sup>k</sup> All the authors who have written on these diseases, might here be cited.

<sup>1</sup> We do not notice its use as an emetic, as we think it entirely superseded by the ipecacuanha.

<sup>m</sup> This is mentioned on the authority of Dr. Cullen. *M. M. v. ii. p. 558.*

<sup>n</sup> Cullen, *l. c.*



Where the primæ viæ abound with mucous matter, and the lungs are oppressed with viscid phlegm, this medicine is likewise in general estimation.

As an expectorant, the Squill may be supposed not only to attenuate the mucus, and thus facilitate its ejection, but by stimulating the secretory organs and mucous follicles, to excite a more copious excretion of it from the lungs, and thereby lessen the congestion, upon which the difficulty of respiration very generally depends. Therefore in all pulmonic affections, excepting only those of actual or violent inflammation, ulcer, and spasm, the Squill has been experienced to be an useful medicine.

The officinal preparations of Squills are a conserve, dried Squills,\* a syrup, and vinegar, an oxymel, and pills. Practitioners have not however confined themselves to these:° when this root was intended as a diuretic, it has most commonly been used in powder, as being in this state less disposed to nauseate the stomach; and to the powder it has been the practice to add neutral salts, as nitre; or crystals of tartar, especially if the patient complained of much thirst; others recommend calomel; and with a view to render the Squills less offensive to the stomach, it has been usual to conjoin an aromatic. The dose of dried Squill is from two to four or six grains, once a day, or half this quantity twice a day; afterwards to be regulated according to its effects. The dose of the other preparations of this drug, when fresh, should be four times this weight; for this root loses in the process of drying four-fifths of its original weight, and this loss is merely a watery exhalation.†

\* “ We must not, however, miss to observe here, that the drying of the Squill is a business that requires much attention, as it may be readily over done, and thereby render the Squill entirely useless. This over drying in one way or other, happens more frequently than our apothecaries are aware of; and has led me to allow, that some operation on the stomach, some nausea excited by the Squill, is a necessary test of the activity of the portion of it employed.” Cullen, *l. c.*

° See on this subject Wagner, *obs. clin. sect. 2.* in Hall. *collect. diff.* Ludwig, *Advers Medio-pract. vol. ii. p. 695.* Quarin, *l. c.* Werlhof, *Oper.* Stoll, *Prælect. in morb. chron.* Home, *Clin. Exper. & Hist. p. 357. &c.*

† Duncan, *New Edinb. Dispens. p. 322.*

## ARTEMISIA ABROTANUM.

## ARTEMISIA ABROTANUM. COMMON SOUTHERNWOOD.

*SYNONYMA.* Abrotanum. *Pharm. Lond. & Edinb.* Abrotanum mas angustifolium majus. *Baub. Pin. p. 136. Tourn. Inst. p. 459. Dubamel, Arb. i. p. 20. t. 4.* Abrotanum mas vulgare. *Park. Theat. p. 92.* Abrotanum mas. *Gerard. Emac. p. 1105. Raii Hist. p. 371. Dodon. Pempt. p. 21.*

$\alpha$  A. caule erecto.

$\beta$  A. humilis foliis fetaceis pinnatifidis, caule decumbente suffruticoso. *Mill. Dict.*

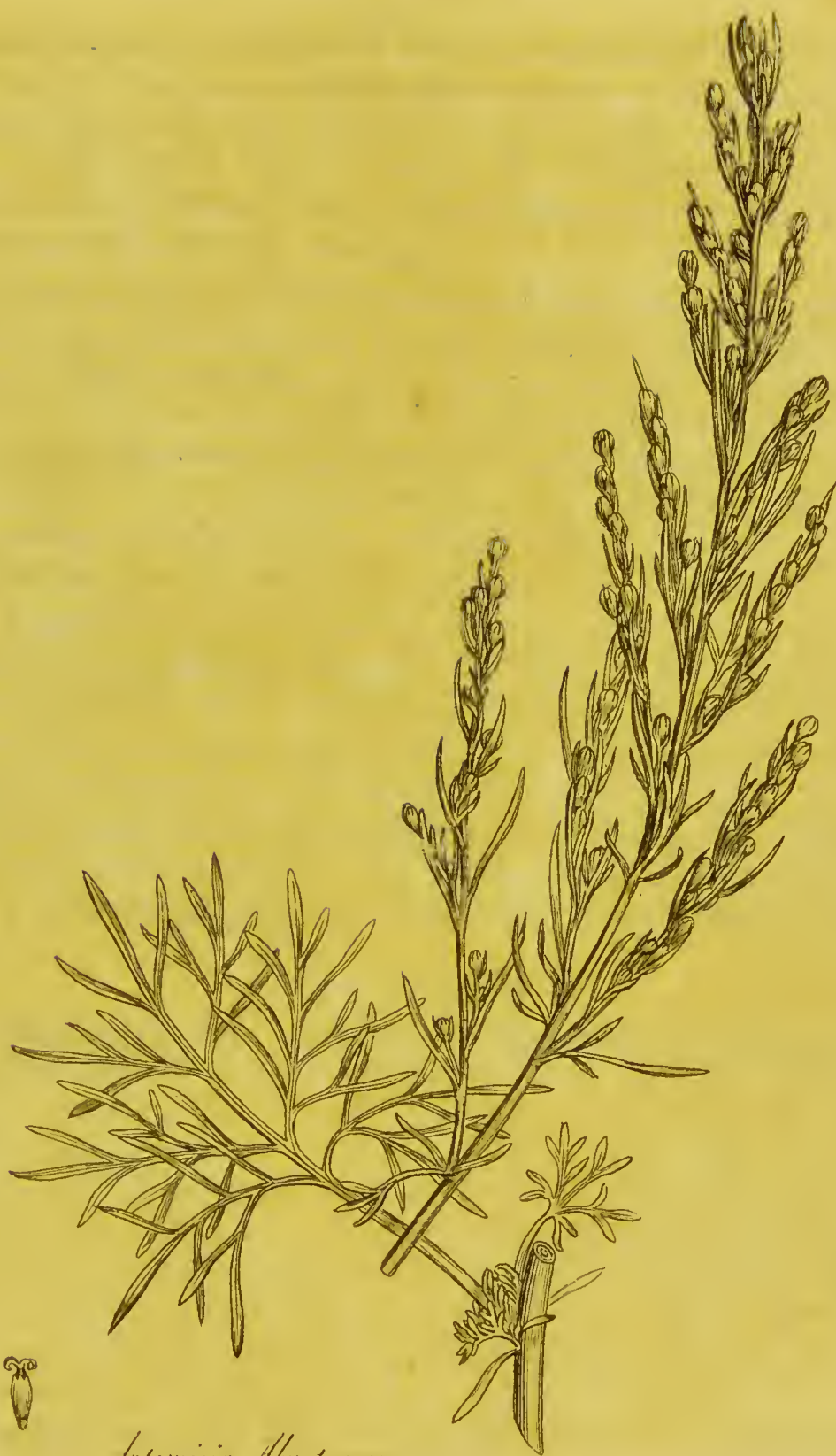
*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant. 945.*

*Eff. Gen. Ch.* Recept. subvillosum vel nudiusculum. *Pappus* nullus. *Cal.* imbricatus, squamis rotundatis, conniventibus. *Cor.* radii nullæ.

*Sp. Ch.* A. fruticosa, foliis fetaceis ramosissimis.

THE root is perennial, woody, and fibrous: the stalk is shrubby, round, covered with smooth brown bark, sends off vertical branches, and rises two or three feet in height: the leaves are numerous, somewhat hoary, doubly and irregularly pinnated; pinnae, linear, long, narrow, entire, concave on the upper side, convex beneath, and stand upon long footstalks, which are also of this shape: the flowers are small, of a greenish yellow colour, and placed in close terminal spikes upon the branches: the calyx is imbricated, consisting of several membranous scales: the flowers are compound, composed of numerous florets; those in the *centre*, or *disc*, are *hermaphrodite*; but in the *margin* they are *female*: the corolla is tubular, and extremely minute: the filaments are five, short, and slender: the antheræ are united, and form a hollow cylinder: the style is longer than the stamina, and furnished with a cleft reflected stigma: the seeds are naked and solitary.

Southernwood



*Artemisia Abrotanum*

Published by D<sup>r</sup> Woodbelle Dec.<sup>r</sup> 1791





Southernwood is a native of France, Spain, and Italy: it was cultivated here by Gerard, and its odour renders it so generally acceptable, that there are few gardens in which this plant is not to be found. Although it bears the cold of our winters very well, it so rarely flowers in Britain, that a specimen proper for delineation cannot without difficulty be obtained.

The leaves and tops of Southernwood, have a strong, and to most people an agreeable smell: its taste is pungent, bitter, and somewhat nauseous. These qualities are completely extracted by spirituous menstrua, the herb communicating to the spirit a beautiful green colour. Water extracts its virtues less perfectly, and the infusion is of a light brown colour. In distillation with water this plant affords but a small quantity of essential oil; for from sixteen pounds of the fresh leaves scarcely three drams of this oil could be obtained.<sup>a</sup>

The Abrotanum mas & femina were regarded by the ancients<sup>b</sup> as medicines of considerable efficacy; the latter is referred to Santolina Chamæ-Cyparissus, *Lin.* (Common Lavender Cotton); the former is the species now under consideration, and has been esteemed to be stomachic, carminative, and deobstruent: it is supposed to stimulate the whole system, more particularly that of the uterus. But though it still retains a place both in the London and Edinburgh pharmacopœias, it is now rarely used, unless in the way of fomentation.

<sup>a</sup> Lewis, *M. M.* p. 4.

<sup>b</sup> See Theophrast. *Hist. L.* 1. c. 15. p. 44. Dioscor. *L.* 3. c. 29. p. 184. Galen, *Simpl. L.* 6. p. 40. Pliny, *L.* 21. c. 21.

## ARTEMISIA ABSINTHIUM. COMMON WORMWOOD.

*SYNONYMA.* Absinthium vulgare. *Pharm. Lond. & Edinb.*  
 Absinthium ponticum seu Romanum officinarum, seu Dioscoridis.  
*Baub. Pin. p.* 138. Absinthium latifolium five Ponticum. *Gerard.*  
*Emac. p.* 1096. Absinthium vulgare majus. *J. Baub. Hist. iii.*  
*p.* 168. Absinthium vulgare. *Park. Theat. p.* 98. *Raii Hist. p.*  
*366. Synop. p.* 188. *Hal. Stirp. Helv. n.* 124. Artemisia Absin-  
 thium. *Huds. Ang. p.* 358. *Withering. Bot. Arrang. p.* 891.

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

*Eff. Gen. Ch.* *Recept.* subvillosum vel nudiusculum. *Pappus* nullus.  
*Cal.* imbricatus squamis rotundatis conniventibus. *Cor.* radii  
 nullæ.

*Sp. Ch.* A. foliis compositis multifidis, floribus subglobosis pendulis:  
 receptaculo villoso.

THE root is perennial, long, and fibrous: the stalks are round, channelled, somewhat downy, ligneous, rising two or three feet in height, and sending off several round branches: the leaves are compound, divided into many bluntish segments in a pinnated order, on the under side downy, of a whitish or pale green colour, and silky softness: the flowers are of a brownish yellow colour, pendent, and placed in numerous spikes, which stand alternately upon the branches: the calyx is composed of many oval scales: the florets are hermaphrodite and male, placed upon a villous receptacle, and in the structure of their different parts nearly resembling those described of the preceding species of Artemisia. This plant is a native of Britain, and grows about rubbish, rocks, and sides of roads.

The leaves of Wormwood have a strong disagreeable smell; their taste is nauseous, and so intensely bitter as to be proverbial.

The





*Artemisia Absinthium*

Published by D. Woodville Jan<sup>r</sup> 1792



The flowers are more aromatic and less bitter than the leaves, and the roots discover an aromatic warmth without any bitterness.\*

“ The leaves give out nearly the whole of their smell and taste both to aqueous and spirituous menstrea. Rectified spirit elevates little from this plant in distillation : water brings over almost the whole of its smell and flavour. Along with the aqueous fluid there arises an essential oil, which smells strongly and tastes nauseously of the Wormwood, though not bitter. The quantity of oil varies greatly, according to the soil and season in which the herb is produced.”

“ The watery extract loses the distinguishing smell and ill flavour of the plant, but retains its bitterness almost entire. An extract, made with rectified spirit, contains, along with the bitter, nearly the whole of the nauseous part; water carrying off, in the evaporation, all the oil in which the offensive flavour resides, while pure spirit elevates very little of it.”

This species of Wormwood, which is thought by Professor Murray to be the *Absointhium ponticum* of Dioscorides and Pliny,<sup>d</sup> may be considered the principal of the herbaceous bitters. Its *Virtus*, in the words of Bergius, is antiputredinosa, antacida, anthelminthica, resolvens, tonica, stomachica.<sup>e</sup> And although it is now chiefly employed with a view to the two last mentioned qualities, yet we are told of its good effects in a great variety of diseases, as intermittent fevers,<sup>f</sup> hypochondriasis,<sup>g</sup> obstructions<sup>h</sup> of the liver and spleen, gout,<sup>i</sup> calculi,<sup>k</sup>

\* This plant communicates a bitter taste to the flesh and milk of cows and sheep which feed on it. *Lin. Flor. Suec. n. 735.* The milk of a woman, who took the extract, became extremely bitter. *Aët. Hafn. vol. 2. p. 165.*

<sup>a</sup> *Baumé* from twenty-five pounds of the herb obtained six to ten drams of the oil.

<sup>b</sup> The extract, triturated with salt of tartar, emits a volatile odour; and hence appears to contain sal ammoniacum. *Sulzer. Diff. An in plantis sal essentielle ammoniacum?* *Gott. 1769.*

<sup>c</sup> *Lewis, M. M. p. 6.*

<sup>d</sup> “ *Absointhium bathypicron herba est vulgo cognita. Præstantius in Ponto & Cappadocia in monte Tauro appellato nascitur.*” *Dioscor. L. 3. c. 26. p. 183.*

<sup>e</sup> *Mat. Med. p. 670.* <sup>f</sup> *Boerhaave, Elem. Chem. Processus. 39. Comm. Nor. 1734. p. 225.* <sup>g</sup> *Haller, l. c.*

<sup>h</sup> *Lange, Brunov. p. 111.* <sup>i</sup> *Haller, l. c.* *Bomare, Dict.*

<sup>k</sup> *Linæus, Am. Acad. T. 3. p. 160.*

scurvy,



scurvy,<sup>1</sup> dropfy,<sup>m</sup> worms, &c. Lindestolphe<sup>n</sup> has asserted, that by a continued use of this herb, great injury is done to the nervous system, from its narcotic and debilitating effects, which he experienced upon himself; observing also, that he could never taste the extract or essence of Wormwood without being immediately affected with head-ach and inflammation of the eyes: and it is noticed both by him and his commentator, Stenzelius, that Absinthium produced similar effects upon many others. These narcotic effects of Wormwood have however been attributed to a peculiar idiosyncrasy, as numerous instances have occurred in which this plant produced a contrary effect, though taken daily for the space of six months. Dr. Cullen, speaking on this subject, says, “ I have not had an opportunity of making proper experiments; but to me, with Bergius and Gleditsch, the odour of Wormwood seems temulentans, that is, giving some confusion of head: and formerly, when it was a fashion with some people in this country to drink Purl, that is, ale, in which Wormwood is infused, it was commonly alleged to be more intoxicating than other ales. This effect is improperly supposed to be owing to its volatile parts: but I am more ready to admit the general doctrine of a narcotic power; and I believe, from several considerations, particularly from the history of the Portland powder, that there is in every bitter, when largely employed, a power of destroying the sensibility and irritability of the nervous power.”<sup>o</sup>

Externally Wormwood is used in discutient and antiseptic fomentations. This plant may be taken in powder, but it is more commonly preferred in infusion. The Edinburgh pharmacopœia directs a tincture of the flowers, which is, in the opinion of Dr. Cullen, a light and agreeable bitter, and at the same time a strong impregnation of the Wormwood.

<sup>1</sup> Eugal. *De Scorb.* p. 83.      <sup>m</sup> Fehr, *Hiera. picra, vel de Absinth. analec̃ta.* p. 117.  
Heister in Hall. *Disput. anat.* vol. 6. p. 713. *Misc. Nat. Cur.* Dec. 1. Ann. 3. Obs.  
322.      <sup>n</sup> *De venenis.* p. 547.      <sup>o</sup> *Mat. Med.* vol. 2. p. 81.





*Artemisia vulgaris*

Published by D. Woodville Junr. 1792.



## ARTEMISIA VULGARIS.

## MUG-WORT.

*SYNONYMA.* Artemisia.† *Pharm. Edinb.* Artemisia vulgaris major. *Baub. Pin. p.* 137. Artemisia mater herbarum. *Gerard. Emac. p.* 1103. Artemisia foliis pinnatis inferne tomentosis, pinnis acute dentatis, spica paniculata erecta. *Hal. Stirp. Helv. n.* 130. Artemisia vulgaris. *J. Baub. Hist. iii. p.* 184. *Park. Theat. p.* 90. *Raii Hist. p.* 372. *Synop. p.* 190. *Huds. Flor. Ang. p.* 359. *Withering. Bot. Arrang. p.* 891.

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

*Eff. Gen. Ch.* Recept. subvillosum vel nudiusculum. *Pappus* nullus. *Cal.* imbricatus, squamis rotundatis conniventibus. *Cor.* radii nullæ.

*Sp. Ch.* A. foliis pinnatifidis planis incisfis subtus tomentosis, racemis simplicibus recurvatis floribus radio quinquefloro.

THE root is perennial, composed of numerous strong fibres: the stalk is erect, branched, angular, striated, reddish, and usually rises two or three feet in height: the leaves are irregularly and deeply divided into several laciniae or lobes, which are oval, pointed, on the upper side of a deep green colour, on the under downy, or covered with a cotton-like substance: the flowers are small, purplish, and produced in spikes, which stand alternately, and rise from the bottom of the leaves: the calyx is composed of several narrow scales, which are purplish, woolly, and placed in an imbricated order: the florets are longer than the calyx, stand upon a naked receptacle, and appear in August: the five florets of the circumference are female;

† “Artemisia dicta, ab *Artemisia Mausoli Cariae regis uxore*, quæ hanc sibi, ut loquitur *Plinius l. 25. c. 7. p. 636.* adoptavit, cum antea *παρθενίς* i. e. virginalis, quod virgo dea illi nomen dederit, vocaretur. Sunt qui ab *Artemide Ilithia* cognominatam putent; quoniam privatim foeminarum malis, quibus *Αρτεμης* i. e. *Diana* præest, medeatur.” *G. Baub. l. c.*

those of the centre are hermaphrodite, and both agree in their structure with those of the other species already described.

Mugwort is a native of Britain, and is commonly found growing in waste grounds, and the borders of fields. It is divided into red and white varieties; the former is distinguished by a reddish tinge of the stalk and flowers; in those of the latter they are of a pale green. "The leaves have a light agreeable smell, especially when rubbed a little; but scarcely any other than an herbaceous taste. An extract made from them by water is likewise almost insipid; and an extract made by spirit has only a weak aromatic bitterness. Baierus informs us, in a dissertation on this plant, that by fermenting a large quantity of it, and afterwards distilling, and cohobating the distilled water, a fragrant sapid liquor was obtained, with a thin fragrant oil on the surface. The flowery tops are considerably stronger than the leaves, and hence should seem to be preferable for medicinal use."<sup>a</sup>

This plant, though rarely used at present, was by the ancients held in great estimation. Hippocrates<sup>b</sup> very frequently mentions *Artemisia*: he thought it of great use in promoting uterine evacuations: with this intention it was also employed by Dioscorides;<sup>c</sup> and Galen for this purpose used it in the way of fomentation; a practice which seems in some measure conformable to that of the Chinese women, who, as we are told,<sup>d</sup> make a poultice of the leaves of this plant, mixed with rice and sugar, which in cases of amenorrhœa, and hysteria, *instar bellarii ingerunt*. If this herb however possesses any powers as an antihysterical or uterine, they are very weak; the London College has therefore properly expunged it from the *materia medica*.

Moxa is a substance prepared in Japan from the dried tops and leaves of Mugwort,<sup>e</sup> by beating and rubbing them betwixt the hands till only the fine internal lanuginous fibres remain, which are then combed and formed into little cones. These, used as cauteries, are

<sup>a</sup> *Lewis, M. M. p. 117.*

<sup>b</sup> *De Morb. Mul. lib. 1.*

<sup>c</sup> *Mat. Med. lib. 3. cap. 10.*

<sup>d</sup> *Ten. Rbyne de Arthr. p. 133.*

<sup>e</sup> This however is not the species of *Artemisia* from which the eastern Moxa is made, but that prepared from this plant in Germany was found to answer very well. See *Eph. Nat. Cur. Dec. 3. A. 7. 8. App. 141.*

It has also been made from the down of *Verbascum*.

greatly

greatly celebrated in eastern countries for preventing and curing many disorders;<sup>f</sup> but chronic rheumatisms, gouty, and some other painful affections of the joints, seem to be the chief complaints for which they can be rationally employed. The manner of applying the Moxa is very simple: the part affected being previously moistened, a cone of the Moxa is laid, which being set on fire at the apex, gradually burns down to the skin, where it produces a dark coloured spot: by repeating the process several times, an eschar is formed of any desired extent, and this on separation leaves an ulcer, which is kept open or healed up as circumstances may require.

It is said that the use of the Moxa was originally introduced by the Jesuits;<sup>g</sup> but it is probably of greater antiquity. From remote times it has been the practice to cauterize the affected parts by various means. Hippocrates for this purpose not only used iron but flax, also a species of Fungus;<sup>h</sup> and the Laplanders still prefer the Agaric, (*Boletus ignarius*) which they prepare and use in a similar way, as the Japanese do their Moxa<sup>i</sup>. The Ægyptians produced the same effects by means of cotton or linen cloth;<sup>k</sup> and in Spain a Moxa is prepared from a species of the *Echinops*.

<sup>f</sup> For a full account of these see Kæmpfer *Amœn. exot.* p. 502, &c. Also Abbé Grosier (*Hist. of China*) from whom it appears, that mirrors of ice or metal were used for the purpose of igniting the moxa; and that the ancient Chinese made paper, and a kind of cloth, of the down of artemisia.

<sup>g</sup> See *Recueil d'observations curieuses*, tom. ii. p. 114.

<sup>h</sup> *Lib. de affect.* §. 30.

<sup>i</sup> Harmens and Fiellstrom *Diff. Med. Lapp. in Hall. Collect. diff. præct.* tom. vi. p. 728.

<sup>k</sup> Prosper Alpinus, *Lib. iii. c. 12. p. 209.*

ARTEMISIA



## ARTEMISIA MARITIMA.

## SEA WORMWOOD.

*SYNONYMA.* *Abfinthium maritimum.* *Pharm. Lond.* *Abfinthium seriphium Belgicum.* *Baub. Pin. p. 139.* *J. Baub. Hist. iii. p. 188.* *Abfinthium seriphium five marinum Anglicum.* *Park. Theat. p. 102.* *Abfinthium marinum album.* *Gerard. Emac. p. 1099.* *Raii Hist. p. 370.* *Synop. p. 189.* *Huds. Flor. Ang. p. 359.* *Withering. Bot. Arrang. p. 890.*

*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant. 945.*

*Eff. Gen. Ch..* *Recept.* subvillosum vel nudiusculum. *Pappus* nullus. *Cal.* imbricatus, squamis rotundatis, conniventibus. *Cor.* radii nullæ.

*Sp. Ch.* *A.* foliis multipartitis tomentosis racemis cernuis flosculis femineis ternis.

THE root is perennial, spreading, and fibrous: the stems are procumbent, branched, about a foot in height, and covered with a white down or cotton: the leaves are numerous, irregularly divided into many segments, which are narrow, linear, and covered both above and below with a fine cotton-like substance, giving the whole plant a whitish appearance: the flowers are of a brownish yellow colour, and placed in pendent spikes: the calyx is composed of many roundish scales: three florets at the circumference are female, the others are hermaphrodite, and both in their structure resemble those of *abfinthium*. It is a native of Britain, growing plentifully on the sea shore, and about salt marshes, and flowers in August and September.

This plant seems to have been formerly confounded with the *A. pontica*, or Roman Wormwood, as appears by Ray<sup>a</sup> and Dale;<sup>b</sup> their

<sup>a</sup> “*Abfinthii speciem Londini & alibi in Anglia coli solitam nomine Abfinthii Romani, non aliter ab hoc differre putamus quam culturâ & loco natali.*” &c. *Hist. p. 370.*

<sup>b</sup> Speaking of this plant, he says, “*Mulierculæ Botanopolæ Londinenses Abfinthium romanum vocant.*” *Pharm. p. 99.*

specific



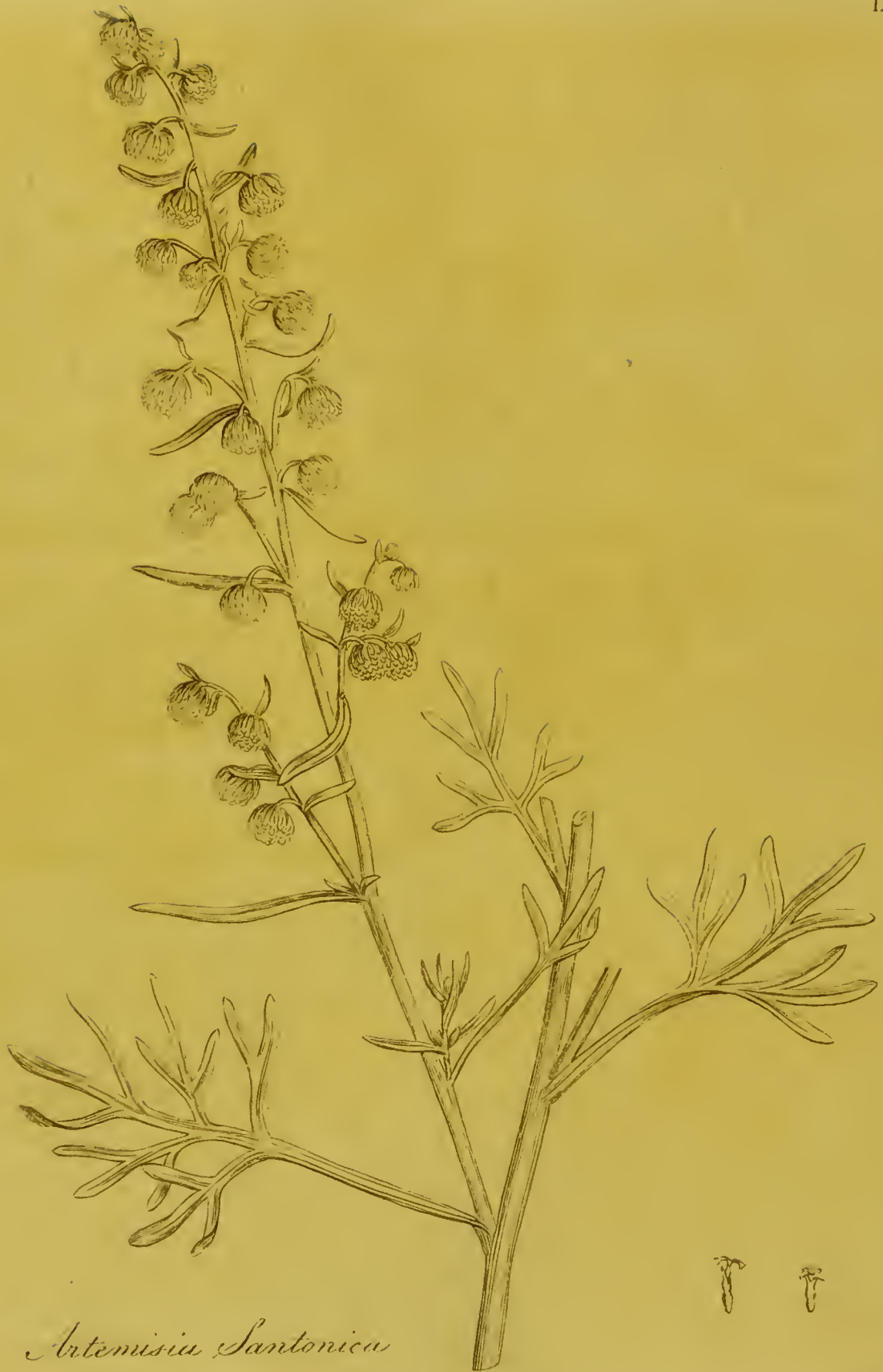
*Artemisia, maritima*

Published by D. Woodville Jan<sup>y</sup> 1792 —









*Artemisia Santonica*

Published by D. Woodville Jan<sup>y</sup> 1792

specific differences however are very evident. Its taste and smell are considerably less unpleasant \* than those of the common Wormwood ; and even the essential oil, which contains the whole of its flavour concentrated, is somewhat less ungrateful, and the watery extract somewhat less bitter, than those of the common wormwood. Hence it is preferred by the London College in those cases where the *A. Absinthium* is supposed to be too offensive to the stomach.† But as the efficacy of these plants depends upon their sensible qualities, this species, though its virtues approach to those of common wormwood, yet from being less powerfully bitter, must be considered in a proportionate degree a less powerful medicine.

A conserve of the tops of this plant is directed by the London Pharmacopœia.

\* “ In its wild state it smells like Marum or Camphor, but in our gardens it is less grateful.” *Withering, l. c.*

The salt of Wormwood, which is obtained from the ashes of the *A. Absinthium*, differs not from other vegetable fixed alkali, provided they be equally pure.

† It appears by Dioscorides, that the ancients believed it to disorder the stomach : — “ *Absinthium marinum*, quidam *σεριφιον* vocant, est herba prætenuibus furculis abrotoni parvi similitudine, minutulis referta feminibus, subamara stomacho inimica graveolens, & cum quadam calfactione astringens.” *l. 3. c. 27.*

## ARTEMISIA SANTONICA. TARTARIAN SOUTHERN- WOOD.

*SYNONYMA.* Santonicum. *Pharm. Lond. & Edinb.* Absinthium Santonicum Alexandrinum. *Bauh. Pin. p. 139. Raii Hist. p. 368. Sementina. Gerard Emac. p. 1100. Semen sanctum. Lob. ic. 758. Absinthium Seriphium Ægyptium & semen sanctum, Scheba Arabum. Camer. Epit. p. 457. Absinthium Santonicum alexandrinum, sive sementina & semen sanctum. Park. Theat. p. 102. Artemisia fruticosa incana ramosissima, corymbis sessilibus spicatis subrotundis, foliis superioribus linearibus brevissimis obtusiusculis. Gmel. Lib. 11. p. 115. t. 51.*



*Class* Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

*Eff. Gen. Ch.* *Recept.* subvillosum vel nudiusculum. *Pappus* nullus.

*Cal.* imbricatus squamis rotundatis conniventibus. *Cor.* radii nullæ.

*Sp. Ch.* A. foliis caulinis linearibus pinnato-multifidis, ramis indivisis, spicis secundis reflexis, floribus quinquefloris.

THE root is perennial: the stem is round, smooth, branched, somewhat hoary, and rises about two feet in height: the lower leaves are divided into many narrow linear segments, standing in a pinnated order; those of the branches are sessile, narrow, and undivided; they are all of a pale green on the upper side, and whitish beneath: the flowers are roundish, brown, and placed in spikes upon short slender alternate peduncles: the calyx is composed of numerous narrow scales: the florets are male and female, placed upon a naked receptacle, and in their situation and structure agree with the other species of *Artemisia* already described. It is a native of Siberia, and flowers in September.

This species, which was first cultivated in England by Mr. P. Miller,<sup>a</sup> we obtained at the Royal Garden at Kew; but whether it is the officinal *Santonicum*, or not, seems very doubtful.\*

It appears by the *species plantarum*, that though Linnæus first considered this plant to be the *Santonicum*, afterwards however he changed his opinion, and referred it to another species, named *Artemisia judaica*;<sup>b</sup> and in this he has been followed by Murray and Bergius; but as the evidence upon which this determination is founded, is admitted by Linnæus himself to be still inconclusive,<sup>c</sup> we have in conformity to the London College adopted the *Artemisia* as originally referred to.

<sup>a</sup> See *Aiton's Hort. Kew.*

\* The following observation of Geoffroy on this subject is still, in some measure, applicable:—"Nulla quidem res in officinis magis usitata & cujus origo minus cognita fit. Num in Galliâ proveniat, in Palæstinâ, in Ægypto, vel in Persiâ, aut in solo regno, Boutan, in India orientali remotissima." *M. M.* vol. ii. p. 466.

<sup>b</sup> *Mantissa*, p. 111. & p. 281. And *Mat. Med.* second Edition.

<sup>c</sup> He enumerates the seeds of this plant among those of the other plants hitherto not sufficiently ascertained. See his *Preface* to the *Materia Medica*.

The seed of Santonicum or Wormfeed is small, light, oval, composed as it were of a number of thin membranous coats, of a yellowish green colour, with a cast of brown; easily friable on being rubbed between the fingers, into a fine chaffy kind of substance.

These seeds are brought from the Levant;<sup>d</sup> they have a moderately strong and not agreeable smell, somewhat of the wormwood kind; and a very bitter subacid taste. Their virtues are extracted both by watery and spirituous menstrua.

These seeds, in common with the other Artemisias, are esteemed to be stomachic, emmenagogue,<sup>e</sup> and anthelmintic; but it is especially for the last mentioned powers that they have been generally administered; and from their efficacy in this way they obtained the name of Wormfeed. Their quality of destroying worms has been ascribed solely to their bitterness; but it appears from Baglivi, that worms (*lumbrici*) immersed in a strong infusion of these seeds, were killed in five, and according to Redi, in seven or eight hours,<sup>f</sup> while in the infusion of Wormwood, and in that of Agaric the worms continued to live more than thirty hours; and hence it has been inferred that their vermifuge effects could not wholly depend upon the bitterness of this seed. To adults the dose in substance is from one to two drams twice a day. Lewis thinks that the spirituous extract is the most eligible preparation of the Santonicum for the purposes of an anthelmintic.

<sup>d</sup> *Lewis, M. M. p. 580.*

<sup>e</sup> Remarkable effects of the Santonicum in this way are related by Bergius:—"Puellæ cuidem decenni, vermibus conflictanti, semina Santonici exhibui, sed per illud tempus quo iis utebatur, menses fluxerunt, qua re cognita, usum eorundem dissuasi, unde etiam fluxus sponte cessavit." *M. M. p. 668.*

<sup>f</sup> *Bagliv. Oper. p. 60. Redi de animal. viv. p. 159.*

## DATURA STRAMONIUM.

## DATURA STRAMONIUM. COMMON THORN-APPLE.

*SYNONYMA.* Stramonium. *Pharm. Edinb.* Solanum fœtidum, pomo spinoso oblongo. *Baub. Pin. p.* 168. Stramonium majus album. *Park. Parad. p.* 360. Stramonium spinosum. *Gerard. Emac. p.* 348. *Raii Hist. p.* 748. Stramonium foliis angulosis, fructu erecto, muricato calyce pentagonia. *Hall. Stirp. Helv. n.* 586. D. stramonium. *Withering. Bot. Arrang. p.* 230. *Flor. Danic. p.* 436. *Stoerck. Libell. de Stram. &c. Curt. Flor. Lond.*

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. p.* 246.

*Eff. Gen. Ch.* Cor. infundib. plicata. Cal. tubulosus, angulatus, deciduus. *Caps.* 4-valvis.

*Sp. Ch.* D. pericarp. spinosis erectis ovatis, foliis ovatis glabris.

THE root is large, annual, white, divided, and fibrous: the stalk is thick, erect, round, smooth, shining, below simple, above dichotomous, and rises about two feet in height: the leaves are alternate, large, broad towards the base, pointed at the extremity, indented, and formed into several obtuse angles, smooth, of a dark green colour, and standing upon strong round short footstalks: the flowers are solitary, large, white, and placed on short erect peduncles at the junction of the branches: the calyx is composed of one leaf, tubular, pentangular, and divided at the brim into five teeth: the corolla is white, monopetalous, funnel-shaped, plicated, cut at the margin into five teeth, and furnished with a long cylindrical tube: the five filaments are tapering, about the length of the calyx, adhering to the tube, and supplied with oblong flat antheræ: the germen is oblong, and placed above the insertion of the corolla: the style is filiform, equal in length to the filaments, and terminated by a thick blunt stigma: the capsule is large, oval, fleshy, beset with spines, divided into the cells, and four valves, which contain numerous kidney-shaped seeds. It grows wild  
in





*Tulipa Stramonium*

Published by D.<sup>r</sup> Woodville Jan.<sup>r</sup> 1792





in this country, about dunghills, rubbish, and in gardens, flowering in July.

This plant has been long known as a powerful narcotic poison; its congener, the D. Metel, is thought to be *Στεφυχνος μαχνηκος* of Theophrastus and Dioscorides, and is therefore the species received by Linnæus into the *Materia Medica*. The Stramonium, in its recent state, has a bitterish taste, and a smell somewhat resembling that of poppies, or as called by Bergius, narcotic, especially if the leaves be rubbed betwixt the fingers. By holding the plant to the nose for some time, or sleeping in a bed where the leaves are strewed, giddiness of the head and stupor are said to have been produced.<sup>a</sup>

Instances of the deleterious effects of this plant are numerous, especially of the seeds,<sup>b</sup> some of which we shall relate for the purpose of stating the symptoms which they produce. A man, aged sixty-nine, labouring under a calculous complaint, by mistake boiled the capsules of the Stramonium in milk, and in consequence of drinking this decoction was affected with vertigo, dryness of the fauces, anxiety,

<sup>a</sup> *Stoerck, l. c. p. 5.*

<sup>b</sup> *Kramer, in Comm. Nor. A. 1733. p. 251. Kaauw. impet. n. 349. Lobsten epist. ad Gurrin. plant. venen. Alsat. Clauder. præv. med. leg. Cas. i. Eph. Nat. Cur. Cent. ix. obs. 94. Huckel, in Comm. Lit. Nor. 1744. p. 14. Kaauw. Aët. Franc. i. p. 200. Buchner, Miscell. 1725. p. 611. Eph. Nat. cur. Dec. iii. a. 3. obs. 170. Barrere, Essai sur l'hist. nat. de la France (ed. nov.) p. 48. Deering. Catal. of Plants, &c. p. 209. Buchner, Misc. Phys. Math. Med. 1727. p. 122. Sauvages, Nosol. T. 2. P. 2. p. 430. Fowler, Med. Comm. vol. v. p. 164.*

The circumstances recited in the following advertisement, published by my friend Dr. Haygarth, shew the necessity of adopting the precautions, which he judiciously recommends, and which ought to be made public.

“ Gardeners are particularly desired to take care never to throw poisonous plants out of gardens into the streets, lanes, or even the fields to which people can have access. Poor children, for diversion, curiosity, or hunger, are prompted to eat all kinds of vegetables which come in their way, especially seeds, fruits, or roots. This caution does not proceed from fanciful speculation, but from actual mischief, produced by the cause here specified. A physician has lately seen several children poisoned with the roots of the Aconite or Monkshood, thrown into an open field in the City of Chester, and with the seeds of the Stramonium or Thorn Apple, thrown into the street. The former were seized with very violent complaints of vomiting, an alarming pain of the head, stomach, and bowels; the latter with blindness, and a kind of madness, biting, scratching, shrieking, laughing, and crying, in a frightful manner. Many of them were very dangerously affected, and escaped very narrowly with life. These, and all other, poisonous plants, taken out of gardens, should be carefully buried or burned.”

No. 25.

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followed.



followed with loss of voice and sense; the pulse became small and quick, the extremities cold, the limbs paralytic, the features distorted, accompanied with violent delirium, continual watchfulness, and a total suppression of all the evacuations; but in a few hours he was restored to his former state of health.<sup>c</sup>

Every part of the plant appears to possess a narcotic power,<sup>d</sup> but the seeds are the only part, of whose fatal effects we find instances recorded. Their soporiferous and intoxicating qualities are well known in eastern countries,<sup>e</sup> and if we can credit the accounts of some authors, have been converted to purposes the most licentious and dishonourable.<sup>f</sup> The internal use of Stramonium, as well as that of several other deleterious plants which we have had occasion to notice, was first ventured upon and recommended by Baron Stöerck, who gave an extract prepared of the expressed juice of the plant, with advantage, in cases of mania, epilepsy, and some other convulsive affections.<sup>g</sup> But as the success of this plant, even in the hands of the Baron, was not remarkable enough to claim very extraordinary praise, his account of the efficacy of the Stramonium probably would not have procured it a place in the *Materia Medica* of the *Edinburgh Pharmacopœia*, had its character rested solely upon his representation. Odhelius tells us, that of fourteen patients suffering under epileptic and convulsive affections, to whom he gave the Stra-

<sup>c</sup> *Eff. & Obs. Phys. & Lit. v. ii. p. 247.*

According to Haller, "Deliria facit utique & sopores, inde amentiam, maniam, convulsiones, paralytes artuum, sudores frigidas, sitim vehementem, tremores." *l. c.*

<sup>d</sup> For that of the root, see *Ray, l. c.* For that of the leaves, *Döderlin, Comm. Nor. l. c. p. 15.*

<sup>e</sup> "Ab Indis inter alia inebriantia et aromatica in electuarium recipitur semen, ad grata phantasmata cienda, et, ut quidam volunt, quo ad celera patranda tanto audaciores evadant." *Kæmpher, Exot. p. 650.* Cited by *Murray, App. Med. vol. i. p. 458.*

It was a custom with the Chinese to infuse the seeds in beer. *Sprat, Hist. of the Royal Society, p. 162.*

<sup>f</sup> "Somnum facit adeo profundum, ut impune pudicitia puellæ violari possit, quæ hoc toxicum sumserit." See *Haller, l. c.* A mulierculis infidis Turcis, gynecæis inclusis, ad consopiosos & dementandos maritos, quo aliorum magis desideratorum amplexibus fatientur, usurpari, et Hamburgi a vetula sic honestam feminam, quo se infamia moechum admitteret, intoxicatam narratur. *Lindenstolpe de ven. Ed. Stenzel. p. 531.* Cited by *Murray, l. c.*

<sup>g</sup> *Lib. de Stram. &c.* published in 1762.

monium

monium in an hospital at Stockholm, eight were completely cured, five were relieved, and only one received no benefit.<sup>h</sup> Bergius relates three cases of its success, viz. one of mania, and two of convulsions.<sup>i</sup> Reef, a Swedish physician, mentions its utility in two cases of mania.<sup>k</sup> Wedenberg cured four girls, affected with convulsive complaints, by the use of this medicine.<sup>l</sup> Other instances of the kind might be added. Greding however, who made many experiments, with a view to ascertain the efficacy of this plant, was not so successful; for out of the great number of cases in which he employed the Stramonium, it was only in one instance that it effected a cure; and he objects to the cases stated by Dr. Odhelius, on the ground that the patients were dismissed before sufficient time was allowed to know whether the disease would return again or not.<sup>m</sup> In this country we are unacquainted with any practitioners whose experience tends to throw any light on the medical character of this plant. It appears to us, that its effects as a medicine are to be referred to no other power than that of a narcotic; and Dr. Cullen, speaking on this subject, says, “ I have no doubt that narcotics may be a remedy in certain cases of mania and epilepsy; but I have not, and I doubt if any other person has, learned to distinguish the cases to which such remedies are properly adapted. It is therefore that we find the other narcotics, as well as the Stramonium, to fail in the same hands in which they had in other cases seemed to succeed. It is this consideration that has occasioned my neglecting the use of Stramonium, and therefore prevented me from speaking more precisely from my own experience on this subject.”<sup>n</sup>

The extract of this plant has been the preparation usually employed, and from one to ten grains and upwards, a day; but the powdered leaves, after the manner of those directed of hemlock, would seem for the reason there given, to be a preparation more cer-

<sup>h</sup> See *Vetensk. Acad. Handl.* 1766. p. 277. sq.

<sup>i</sup> In his *Mat. Med.* he also says, “ Delirium post puerperium sæpe curavi cum Datura, ubi alia fefellerunt;” adding, “ Pariter illa profuit adversus ideam fixam ex mœrore cum deliratione mansueta conjuncta,” p. 122.

<sup>k</sup> Strandberg, *om. chron. sjukd.* p. 16.

<sup>l</sup> *Diff. de Stammonii usu, &c.*

<sup>m</sup> *Ludwig. Advers.* vol. i. p. 354.

<sup>n</sup> *Mat. Med.* vol. ii. p. 282.



tain and convenient. Greding found the strength of the extract to vary exceedingly; that which he obtained from Ludwig, was a much more powerful medicine than that which he had of Stoeck.

Externally the leaves of Stramonium have been used as an application to inflammatory tumours and burns; in the latter a remarkable instance is noticed by Gerard. l. c.

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VERBASCUM THAPSUS.      GREAT BROAD-LEAVED  
MULLEIN.

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*SYNONYMA.* Verbasum. *Pharm. Edinb.* Verbasum mas-  
latifolium luteum. *Baub. Pin. p.* 239. *Raii Hist. p.* 1094.  
*Synop. p.* 287. Verbasum album vulgare, five Tapfus barbatus  
communis. *Park. Theat. p.* 60. Tapfus barbatus. *Gerard*  
*Emac. p.* 773. Verbasum foliis decurrentibus utrinque tomen-  
tosis (*lanatis*) *Hal. Stirp. Helv. n.* 581. V. Thapsus. *Flor. Dan.*  
*p.* 631. *Hudson. Ang. p.* 89. *Withering. Bot. Arr. p.* 223.

*Class* Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 243.

*Eff. Gen. Ch.* Cor. rotata subinæqualis. *Caps.* 3-locularis, 2-valvis.

*Sp. Ch.* V. foliis decurrentibus utrinque tomentosis caule simplici.

THE root is biennial, long, divided, and descends deeply into the ground: the stalk is simple, erect, round, rigid, hairy, rises two or three feet in height, and is irregularly beset with leaves, which are large, without footstalks, at the base decurrent, or running along the stem, oblong or oval, somewhat pointed, indented at the margin, of a pale green colour, and covered on both sides with thick down, or white soft hairs: the bractæ are lance-shaped, with narrow points, hairy on the under side, on the upper smooth, and longer than the calyx: the flowers are yellow, and produced in long close terminal inclining spikes: the calyx is divided into five pointed segments,  
which





*Lobosium Thapsus*

Published by D. Woodville Jan. 1. 1792



which are hairy on the outside: the corolla is monopetalous, yellow, divided at the limb into five unequal segments, which are blunt, oval, veined, and slightly indented at the edges: the five filaments are hairy, of unequal length, and furnished with double reddish antheræ: the germen is roundish, downy, and supports a simple style, crowned with a compressed stigma: the capsule is oblong, separated into two cells and valves, and contains many small angular seeds. It is a native of England, and usually grows on the banks of ditches, and flowers in July.

The Verbascum, according to C. Bauhin, is the *φλομος*<sup>a</sup> of Dioscorides: it ranks with the natural order Solanaceæ, but does not seem to possess those narcotic powers for which this order is distinguished.\* The leaves have an herbaceous, bitterish, subastringent taste, but no peculiar smell: upon being chewed they discover a mucilaginous quality; and hence they are recommended as emollients both internally and externally. In the way of fomentation and cataplasm they are said to be an useful application to hæmorrhoidal tumours; also for promoting the resolution or suppuration of glandular indurations.<sup>b</sup>

Catarrhal coughs and diarrhœas are the complaints for which the Verbascum has been internally prescribed. Dr. Home tried it in both, but it was only in the latter disease that this plant succeeded. He relates four cases in which a decoction of Verbascum was given; and from which he concludes, that it “is useful in diminishing or stopping diarrhœas of an old standing, and often in easing the pains of the intestines. These acquire a great degree of irritability; and the ordinary irritating causes, aliment, bile, distention from air, keep up a quicker peristaltic motion. This is obviated by the emollient and perhaps gentle astringent qualities of this plant.”<sup>c</sup>

The decoction was prepared of two ounces of the leaves, with a quart of water, of which four ounces were given every three hours. The flowers of this plant have likewise been employed medicinally, having been supposed to possess anodyne and pectoral virtues: it is probable, however, that neither the leaves nor flowers deserve to be considered as medicines of much efficacy.

<sup>a</sup> Α φλεγω, uro, quasi φλογος, flamma, quia hujus pro elychniis usus est. C. Bauh, l. c.

\* We are told, however, that by the seeds of this plant fishes become so stupified as to suffer themselves to be taken out of the water by the hand. Eoccone, Vide Bergius, Mat. Med. p. 117. <sup>b</sup> See Mur. M. M. vol. i. p. 488. <sup>c</sup> Clinical Ex. & Hist. sect. 22.

In pulmonary complaints of cattle the Verbascum was found of great use, and hence is by Gerard called Cow's Lung-wort.



## QUERCUS ROBUR.

## COMMON OAK.

**SYNONYMA.** *Quercus. Pharm. Lond. & Edinb.* *Quercus cum longo pediculo. Baub. Pin. p. 420.* *Quercus vulgaris. Gerard Emac. p. 1340.* *Quercus latifolia. Park. Theat. p. 1386.* *Quercus vulgaris longis pediculis. J. Baub. Hist. vol. i. p. 70. Raii Hist. p. 1385. Synop. p. 440.* *Quercus Robur. Evel. Sylv. by Hunter, ed. 2. p. 67. Du Roy, Baumz. t. ii. p. 236. Hudf. Ang. p. 421. Withering, Bot. Arr. p. 1083. Hall. Stirp. Helv. n. 1626.*

α Arborea, pedunculis elongatis (pedunculata) *Aiton, Hort. Kew.*

FEMALE OAK TREE.

β Arborea, fructibus subsessilibus (sessilis) *Aiton, Hort. Kew.*

COMMON OAK TREE.

γ Frutescens, ramis virgatis, fructibus sessilibus (humilis) *Aiton. l.c.*

DWARF COMMON OAK TREE.

*Class Monoecia. Ord. Polyandria. Lin. Gen. Plant. 1070.*

*Eff. Gen. Ch. Masc. Cal. 5-fidus fere. Cor. 0. Stam. 5-10.*

*FEM. Cal. 1-phyllus, integerrimus, scaber. Cor. 0.*

*Styli 2-5. Sem. 1, ovatum.*

*Sp. Ch. Q. foliis oblongis glabris sinuatis: lobis rotundatis, glandibus oblongis. Aiton. Hort. Kew.*

THIS tree frequently rises to a very considerable height,<sup>a</sup> sends off

<sup>a</sup> An Oak tree, in the parish of Little Shelfley, Worcestershire, measured in circumference, at about two yards from the ground, 22 feet 4 inches, and close to the ground nearly 48 feet, (Hollefear).—Of one growing in 1764, in Broomfield Wood, near Ludlow, Shropshire, the trunk measured 68 feet in girth, and 23 in length: this tree, allowing 90 square feet for the larger branches, contained 1455 feet of thick timber, (Lightfoot).—The girth of the Green Dale Oak, near Welbeck, at eleven feet from the ground, was 38 feet; and one growing at Cowthorpe, near Wetherby, Yorkshire, measured 78 feet in circumference close to the ground. (Hunt. Evel.) See *Withering, l.c.*

This reminds us of the Oak alluded to by Virgil:

————— & quantum vertice ad auras

Ætherias, tantum radice in Tartara tendit.

*Æn. l. iv. 445.*

strong

*Quercus Robur*

Published by D<sup>r</sup> Woodville K.6.25 1 1792

THE HISTORY OF THE  
CITY OF LONDON  
FROM THE FOUNDATION  
TO THE PRESENT  
TIME  
BY  
JOHN STOW  
1618



strong branches, and is covered with rough brown bark: the leaves are oblong, broader towards the end, deeply cut or sinuated at the edges, forming obtuse lobes, and stand upon short footstalks: the flowers are very small, and are male and female upon the same tree: the calyx of the *male flowers* is divided into five, six, or seven segments, which are pointed, and often cloven: there is no corolla: the filaments are from five to ten, and supplied with large double antheræ: the calyx of the *female flower* is membranous, hemispherical, and composed of numerous imbricated pointed segments: there is no corolla: the germen is oval: the styles from two to five, and furnished with simple permanent stigmata: its fruit is a nut, which is oblong, fixed to a short cup, and ripens in October, but the flowers appear in April.

This valuable tree is well known to be a native of Britain, where it has in some instances acquired an extraordinary magnitude: its wood is of general use in carpentry, and by uniting hardness with such a degree of toughness as not easily to splinter, has been long justly preferred for the purpose of building ships.<sup>b</sup>

The astringent effects of the Oak were sufficiently known to the ancients, by whom different parts of the tree were used; but it is the bark which is now directed for medicinal use by our pharmacopœias. To this tree we may also refer the Gallæ, or Galls, which are produced from its leaves by means of a certain insect.

Oak bark manifests to the taste a strong astringency, accompanied with a moderate bitterness, qualities which are extracted both by water and by rectified spirit. Its universal use and preference in the tanning of leather is a proof of its great astringency, and like other astringents it has been recommended in agues, and for restraining hæmorrhagies, alvine fluxes, and other immoderate evacuations. A decoction of it has likewise been advantageously employed as a gargle, and as a fomentation or lotion in procidentia recti et uteri. Dr. Cullen tells us, that he has frequently employed the decoction with success in slight tumefactions of the mucous membrane of the fauces, and in

<sup>b</sup> Oak saw-dust is the principal indigenous vegetable used in dying fustian. All the varieties of drabs, and different shades of brown, are made with oak saw-dust, variously managed and compounded. Oak apples are likewise used in dying, as a substitute for galls. An infusion of the bark, with a small quantity of copperas, is used by the common people to dye woollen of a purplish blue, which is sufficiently durable. *Withering, l. c.*

prolapsus uvulæ, and cynanche tonsillaris, to which some people are liable upon the least exposure to cold : and in many cases this decoction, early applied, has appeared useful in preventing these disorders. It must be remarked however, that the Dr. almost constantly added a portion of alum to these decoctions.<sup>c</sup>

Some have supposed that this bark is not less efficacious than that of the Cinchona, especially in the form of extract ; but this opinion now obtains little credit, though there be no doubt that Oak bark may have the power of curing intermittents.<sup>d</sup>

Galls, which in the warm climate of the East are found upon the leaves of this tree, are occasioned by a small insect, with four wings, called *Cynips quercus folii*, which deposits an egg in the substance of the leaf, by making a small perforation through the under surface. The ball presently begins to grow, and the egg in the centre of it changes to a worm ; this worm again changes to a nymph, and the nymph to the flying insect above mentioned,\* which by eating its passage out leaves a round hole : and those galls which have no holes, are found to have the dead insect remaining in them.

Two sorts of galls are distinguished in the shops, one said to be brought from Aleppo, the other from the southern parts of Europe. The former are generally of a bluish colour, or of a greyish, or black, verging to blueness, unequal and warty on the surface, hard to break, and of a close compact texture : the others are of a light brownish or whitish colour, smooth, round, easily broken, less compact, and of a much larger size. The two sorts differ only in strength,

<sup>c</sup> Dr. Cullen tried also a solution of the alum alone, “ but it did not prove so effectual.” See *Mat. Med.* vol. ii. p. 45.

<sup>d</sup> “ I have employed the Oak bark in powder, giving it to the quantity of half a dram every two or three hours during the intermissions of a fever ; and, both by itself, and joined with camomile flowers, have prevented the return of the paroxysms of intermittents.” *Cullen, l. c.*

\* Many other excrescences are produced on this tree, and the insects which inhabit it are very numerous. For an enumeration of these, see *Withering, l. c.*

We have already noticed that the Oak in some parts of the East distills a species of manna, (p. 105) so that the words of Virgil seem literally verified : —

“ Et duræ quercus sudabunt rosida mella.” *Ecl. iv. 30.*

two







*Juglans regia*

Published by D. Woodville Feb 7 1792.

two of the blue galls being supposed equivalent in this respect to three of the others.\*

Galls appear to be the most powerful of the vegetable astringents, striking a deep black when mixed with a solution of ferrum vitriolatum, and therefore preferred to every other substance for the purpose of making ink. As a medicine, they are to be considered as applicable to the same indications as the querci cortex, and by possessing a greater degree of astringent and styptic power, seem to have an advantage over Oak bark, and to be better suited for external use. Reduced to fine powder, and made into an ointment, they have been found of great service in hæmorrhoidal affections.<sup>f</sup> Their efficacy in intermittent fevers was tried by Mr. Poupert, by order of the Academy of Sciences, and from his report it appears, that the Galls succeeded in many cases; and also that they failed in many other cases, which were afterwards cured by the Peruvian bark.<sup>g</sup>

\* Lewis, M. M.

<sup>f</sup> See Cullen, l. c.

<sup>g</sup> See Mem. pour l'an. 1702.

## JUGLANS REGIA.

## COMMON WALNUT-TREE.

*SYNONYMA.* Juglans. *Pharm. Lond.* Nux Juglans five regia vulgaris. *Baub. Pin. p.* 417. *Tourn. Inst. p.* 501. Nux Juglans. *Gerard. Emac. p.* 1440. *Raii Hist. p.* 1376. *J. Baub. Hist. vol. i. p.* 241. Nux Juglans vulgaris. *Park. Theat. p.* 1413. Juglans foliis septenis, ovato-lanceolatis, integerrimis. *Hal. Stirp. Helv. n.* 1624. Juglans regia. *IC. Mill. Illust. Cramer Forstweesen. tab. 22. Du Ham. Arb. 2. p.* 50. *t. 13. Hunt. Evel.*

*Class* Monoecia. *Ord.* Polyandria. *Lin. Gen. Plant. p.* 1071.

*Eff. Gen. Ch.* *MASC.* *Cal.* 1-phyllus, squamiformis. *Cor.* 6-partita. *Filamenta,* 18.

*FEM.* *Cal.* 4-fidus, superus. *Cor.* 4-partita. *Styli* 2. *Drupe,* nucleo fulcato.

*Sp. Ch.* J. foliolis ovalibus glabris subferratis subæqualibus.

No. 26.

4 T

THIS



THIS is a large tree, and usually sends off many strong spreading branches, covered with a greyish bark: the leaves are large, pinnated, composed of several pairs of opposite pinnae, with an odd one at the end; they are oval, entire, nerved, veined, pointed, of a pale green colour, and stand upon short footstalks: the flowers are male and female upon the same tree, appearing in April and May, and the fruit ripens about the end of September: the *male flowers* are placed in a close cylindrical catkin: the calyx is monophyllous and squamous: the corolla is divided into six oval petals: the filaments are numerous, (about eighteen) short, and furnished with erect pointed antheræ: the *female flowers* are generally three together; the calyx is divided into four segments, which are erect, short, evanescent, and stand upon the germen: the corolla is separated into four segments, which are pointed, erect, and longer than the calyx: the germen is oval, and placed below the corolla: the two styles are very short: the stigmata are large, expanding, reflexed, and indented: the fruit is of the drupous kind, large, unilocular, containing a large roundish nut, which is too well known to require a description here.

This tree, which is a native of Persia, has been long cultivated in this country, and bears our winters very well. Linnæus describes its leaves as somewhat ferrated; but this we have never observed, and therefore with Haller would rather substitute the word integerrimis for subferratis. The wood is of a dark colour, and beautifully variegated, especially that of the root, and by being hard enough to admit of polishing, was much used by Cabinet-makers before the introduction of mahogany.

The unripe fruit,<sup>a</sup> which has an astringent bitterish taste, and has been long used as a pickle, is the part directed for medicinal use by the London College, on account of its anthelmintic virtues. Its effects in destroying worms seem confirmed by the testimony of several authors:<sup>b</sup> and in proof of its possessing this vermifuge power, we are told

<sup>a</sup> We may notice for curiosity a notion which formerly prevailed: Ut nuces in proximum annum copiosius proveniant, mos est hodie apud rusticos quosdam, ut nuces perticis decutiantur. Hinc non inconcinnè quidam alludendo cecinit,

Nux, asinus, mulier simili sunt lege ligata;  
Hæc tria nil fructûs faciunt, si verbera cessant.

Vide Ray, l. c.

<sup>b</sup> Plater, Fischer, Andry, and others.







*Esculus Hippocastanum*

Published by D<sup>r</sup> Woodville Feb<sup>r</sup>. 1. 1792

that water, in which the green shells of Walnuts have been macerated, on being poured in a garden, was found to drive all the earth-worms together as far as the water extended,<sup>c</sup> and that the worms by being immersed in a strong infusion of these shells were immediately seized with spasms, and died in two minutes afterwards.<sup>d</sup> An extract of the green fruit is the most convenient preparation, as it may be kept for a sufficient length of time, and made agreeable to the stomach of the patient by mixing it with cinnamon-water. This fruit, in its immature state, is also said to be laxative,<sup>e</sup> and of use in apthous affections and sore throats.\* To answer these purposes, the Wirtemberg Pharm. directs a rob to be prepared of its juice.

The kernel of the Walnut <sup>f</sup> is similar in its qualities to that of the almond and hazel-nut, and affords an oil which amounts to half the weight of the kernel: according to De la Hire,<sup>g</sup> this oil does not congeal by cold, and answers the medicinal purposes of the oil of almonds.

<sup>c</sup> Car. Stephan. *Agricult. lib. 3. c. 13.* Andry, *Generation des vers. p. 142.* J. G. Fischer, *Comm. de vermibus in C. H. et anthelmintico. Stadæ. 1751. p. 14.*

\* Vinegar, in which Walnuts have been pickled, we have found to be a very useful gargle.

<sup>d</sup> Fischer, *l. c.* <sup>e</sup> Bergius, *M. M. p. 744.* <sup>f</sup> De la Glace. *p. 499.*

<sup>g</sup> According to the Salernitan maxim, nuts, eaten after fish, promote digestion.

“ Post pisces nux fit, post carnes caseus esto.”

## ÆSCULUS HIPPOCASTANUM.

## COMMON HORSE CHESNUT.

*SYNONYMA.* Hippocastanum. *Pharm. Edinb.* Castanea folio multifido. *Bauh. Pin. p. 419.* Castanea equina. *Gerard. Emac. p. 1442.* *Park. Theat. p. 1401.* *Raii Hist. p. 1683.* Hippocastanum. *Hal. Stirp. Helv. n. 1029.* Æ. Hip: *Miller Illust. Hunt. Evel. vol. i. p. 359.*

*Class* Heptandria. *Ord.* Monogynia. *Lin. Gen. Plant. 462.*

*Eff. Gen. Ch.* Cal. 1-phyllus, 5-dentatus, ventricosus. Cor. 5-petala, inæqualiter colorata, calyci inferta. Caps. 3-locularis.

*Sp. Ch.* Æ. foliolis septenis.

THIS



THIS tree frequently grows to a great height,<sup>a</sup> and from the upper part of the trunk usually sends off numerous spreading branches, covered with rough brown bark: the leaves are digitated, composed commonly of seven large lobes, which are long, obversely oval, serrated, ribbed, of a pale green colour, and proceed from a common centre attached to a long footstalk: the flowers terminate the branches in large conical spikes, and make a beautiful appearance: the calyx is tubular, and divided at the brim into five short blunt segments: the corolla consists of five petals, which are roundish, spreading, undulated at the edges, inserted in the calyx by narrow claws, and of a fine white colour, irregularly spotted with red and yellow: the filaments are seven, tapering, about the length of the corolla, bending at the top, and supplied with pointed antheræ: the germen is round, supporting a short style, furnished with a pointed stigma: the capsule is round, tough, fleshy, beset with spines, divided into three valves, and containing two <sup>b</sup> roundish compressed seeds. It is a native of the northern parts of Asia, and flowers in April and May.

Though the Castanea was well known to the ancients, yet Matthioli<sup>c</sup> seems to be the first author who describes the Horse Chestnut; which was brought into Europe about the middle of the sixteenth century, and was so scarce in the time of Clusius, that there was then but one tree known at Vienna; which being too young to bear fruit,<sup>d</sup> nuts were obtained from Constantinople in 1588; after which this tree was very generally propagated. It was cultivated in England by Mr. John Tradescant in 1633, and is now very common in this country. The wood is white, soft, soon decays, and is therefore of little value. The fruit in appearance resembles that of the Spanish Chestnut, and is eaten by sheep, goats, deer, oxen, and horses.<sup>e</sup>

It

<sup>a</sup> A Horse Chestnut-tree, above 80 years old, and 50 feet high, still continued in a healthy and growing state. *Samml. d. Berner landwirthschaftl. Gesellsch. vol. ii. p. 943.*

<sup>b</sup> The ripe capsule seldom contains more than one, but on being examined in its embryo state, two are constantly found. *Lin. Gen. Plant.*

<sup>c</sup> See his *Epist. medicinal. op. omn. p. 101. 125.* Afterwards in *Comm. in Dioscorid.*

<sup>d</sup> *Murray, App. Med. vol. iv. p. 63.*

<sup>e</sup> Horses are said to eat this fruit greedily, and by it to have been cured of coughs and pulmonary disorders, and hence the name Horse Chestnut. For the purpose of fattening cattle, and particularly sheep, it has been thought necessary to macerate the nuts in caustic

It contains much farinaceous matter, which by undergoing a proper process, so as to divest it of its bitterness and acrimony, probably might afford a kind of bread: starch has been made of it, and found to be very good:<sup>f</sup> it appears also to possess a saponaceous quality, as it is used, particularly in France and Switzerland, for the purpose of cleaning woollens, and in washing and bleaching linens.<sup>g</sup>

With a view to its errhine power the Edinburgh College has introduced it into the *Materia Medica*; as a small portion of the powder, snuffed up the nostrils, readily excites sneezing; even the infusion or decoction of this fruit produces this effect; it has therefore been recommended for the purpose of producing a discharge from the nose, which, in some complaints of the head and eyes, is found to be of considerable benefit.

On the Continent the bark of the Horse Chestnut-tree is held in great estimation as a febrifuge, and upon the credit of several respectable authors appears to be a medicine of great efficacy. Zannichelli<sup>h</sup> at Venice was the first, who published its successful use in various cases of intermittents; since which its good effects have been confirmed by Leidenfrost, Peipers,<sup>i</sup> Junghanss,<sup>k</sup> Coste and Willemet,<sup>l</sup> Sabarot De La Varniere,<sup>m</sup> Turra,<sup>n</sup> Buchholz,<sup>o</sup> and others: from whom it appears, that this bark may be substituted for the Peruvian bark in every case in which the latter is indicated, and with equal, if not superior, advantage.

caustic alkali, in order to take off the bitterness, afterwards to wash them in water, and then boil them to a paste: (See *Bon Mem. de l'Acad.* 1720. p. 460.) Lime water was also found to answer. (See *Hist. de la Société R. de Montpell. tom. ii. p. 57.*) But if the nuts are cut and mixed with oats or bran, this purpose may be effected with less trouble. *Hannov. Mag.* 1770. p. 226.

<sup>f</sup> Parmentier, *Recherches sur les vegetaux nourissans*, p. 176. 218.

<sup>g</sup> Marcandier, *Traité de Chanvre*, *Leipziger Intelligenzblatt.* 1764. p. 46. *De re rustica*, or the *Repository for papers in Agriculture*, vol. ii. p. 75. sq. &c.

<sup>h</sup> J. Jac Zannichelli *Lettera intorno alle Facolta dell' Ippocastano*, &c.

<sup>i</sup> Leidenfrost in Peipers *Diss. de cortice Hippoc. Duisburg.* 1763. <sup>k</sup> *Diss. de nucis vomicæ et corticis Hippocast. virtute med.* 1770. p. 25. sq. <sup>l</sup> *Essais sur les plantes indigenes.* p. 57. <sup>m</sup> *Journ. de Medec. tom. 47. p. 324.* <sup>n</sup> *Della febrifuga Facolta dell' Ippocastano*, in *Vicenza.* 1780. <sup>o</sup> *Über Antisept. Subst.* 1776.

See Murray, l. c.



The bark, intended for medicinal use, is to be taken from those branches, which are neither very old nor very young, and to be exhibited under similar forms and doses, as directed with respect to the cortex peruvianus. It rarely disagrees with the stomach; but its astringent effects generally require the occasional administration of a laxative.

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MORUS NIGRA. COMMON MULBERRY TREE.

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*SYNONYMA.* Morum. *Pharm. Lond.* Morus fructu nigro. *Baub. Pin.* p. 459. Morus. *Gerard. Emac.* p. 1507. Morus nigra. *J. Baub. Hist. vol. i.* p. 118. *Raii Hist.* p. 1429. *Park. Parad.* p. 596. *Du Hamel Traité des arbres fruitiers, tom. i.* p. 335. *Hunt. Evel. vol. ii.* p. 39.

*Class* Monoecia. *Ord.* Tetrandria. *Lin. Gen. Plant.* 1055.

*Eff. Gen. Ch.* *MASC.* Cal. 4-partitus. *Cor.* 0.

*FEM.* Cal. 4-phyllus. *Cor.* 0. *Styli* 2. *Cal.* baccatus. *Sem.* 1.

*Sp. Ch.* M. foliis cordatis scabris.

THIS tree never grows to a considerable height, but sends off several crooked branches, and is covered with rough brown bark: the leaves are numerous, heart-shaped, serrated, veined, rough, of a bright green colour, and stand upon short footstalks: the flowers are male and female upon the same tree: the *male flowers* are placed in close roundish catkins, each floret composed of a calyx, divided into four leaves, which are oval, concave, and erect: there is no corolla: the filaments are four, longer than the calyx, and furnished with simple antheræ: the calyx of the *female flower* is divided into four

\* This is not constantly the case, as it sometimes happens that all the flowers are male, or female, and consequently barren.





*Morus nigra*

Published by D. Woodville Feb<sup>y</sup> 1. 1792.



obtuse persistent segments : there is no corolla : the germen is roundish, and supports two rough styles, supplied with simple stigmata : the fruit is a large succulent berry, composed of a number of smaller berries, each containing an oval seed, and affixed to a common receptacle. It flowers in June, and its fruit ripens in September.

The Mulberry-tree is a native of Italy, and is now cultivated in most parts of Europe,<sup>b</sup> not only for the grateful fruit which it affords, but in many places for the more lucrative purpose of supplying Silk-worms with its leaves, upon which they feed.<sup>c</sup>

The ripe fruit abounds with a deep violet-coloured juice, which in its general qualities agrees with that of the other acido-dulces, allaying thirst, partly by refrigerating, and partly by exciting an excretion of mucus from the mouth and fauces ; a similar effect is also produced in the stomach, where, by correcting putrescency, a powerful cause of thirst is removed.<sup>d</sup> This is more especially the case with all those fruits in which the acid much prevails over the saccharine part, as the currant, which we have already noticed ;<sup>e</sup> and to which the medicinal qualities of this fruit may be referred ; but both these, and most of the other summer fruits, are to be considered rather as articles of diet than of medicine. The London College directs a *syrupus mori*, which is an agreeable vehicle for various medicines.

The bark of the root of the Mulberry-tree has an acrid bitter taste, and possesses a cathartic power. It has been successfully used as an anthelmintic, particularly in cases of *Tænia*.<sup>f</sup> The dose is half a dram of the powder.

<sup>b</sup> Gerard is the first who is known to have cultivated it in England.

<sup>c</sup> The leaves of the white Mulberry are preferred for this purpose in Europe ; but in China, where the best silk is made, the silk worms are fed with those of the *Morus tartarica*. (Forster, in a letter to Professor Murray. See *App. Med. vol. iv. p. 597. dated 1787.*) From the bark of another species of Mulberry, (*M. papyrifera*) the Japanese make paper, and the inhabitants of some of the islands of the South sea make a kind of cloth.

<sup>d</sup> See Cullen's account of the *fructus acido-dulces*. *Mat. Med. vol. i. p. 242.*

<sup>e</sup> Page 207. See also *Rubus* and *Citrus*.

<sup>f</sup> Vide, Andry, *de la generation des vers*, &c. p. 172.

## FICUS CARICA.



## FICUS CARICA.

## COMMON FIG-TREE.

*SYNONYMA.* Carica. *Pharm. Lond. & Edinb.* Ficus communis. *Baub. Pin. p. 457.* Ficus vulgaris. *Park. Theat. p. 1494.* Ficus. *Gerard. Emac. p. 1410.* Raii *Hist. p. 1531.* Ficus Carica. *Miller Illust. Syst. sex. Du Hamel Traité des arbres Fruitiers. tom. i. p. 207. tab. 1. 2.* Bernard in *Obs. sur la physique, l'hist. nat. &c. tom. 29. tab. 1.* *Σύκη Græc.*

*Glass Polygamia. Ord. Trioecia. Lin. Gen. Plant. 1168.*

*Eff. Gen. Ch.* Receptaculum commune turbinatum, carnosum, connivens, occultans flosculos vel in eodem vel distincto.

*MASC. Cal. 3-partitus. Cor. 0. Stam. 3.*

*FEM. Cal. 5-partitus. Cor. 0. Pist. 1. Sem. 1.*

*Sp. Ch.* F. foliis palmatis.

THE Fig-tree is covered with smooth brown bark, and sends off many spreading branches: the leaves are large, succulent, smooth, irregularly divided into five lobes, of a deep green colour, and stand upon strong footstalks. The fruit, in its early stage, serves as the common receptacle, and contains upon its inner surface all the florets, which are both male and female; the former has the calyx (proper) divided into three segments, which are lance-shaped, erect, and equal: there is no corolla: the filaments are three, bristly, of the length of the calyx, and furnished with double antheræ. The calyx (proper) of the *female flower* is divided into five segments, which are pointed, and nearly equal: there is no corolla: the germen is oval: the style is tapering, inflexed, and furnished with two pointed reflexed stigmata: the calyx is oblique, and contains in its bosom a roundish compressed seed. It is a native of the south of Europe, and commonly produces its flowers in June and July.

The



*Ficus Carica.*

Published by D. Woodville Esq. 1. 1792.





From history, both sacred and profane, the Fig-tree appears to have been known in the most early times. It has been long cultivated in England, and if screened from the north-east winds, commonly ripens its fruit here. The Fig, which has always been found a wholesome food, was by the ancients <sup>a</sup> ripened or brought to perfection by Caprifigation; a practice which in some countries is still continued.<sup>b</sup> It had been observed, that the fruit of this tree frequently withered and dropped off before it arrived at a state of maturity, and upon examination it was discovered that those figs succeeded best which had been perforated by certain winged insects, which therefore were supposed to be instrumental in ripening the fruit. This gave rise to caprifigation, which formerly consisted in tying near the young figs the fruit of the wild fig tree, in which the flies above mentioned breed in abundance, and these insects, upon acquiring sufficient strength, issue from the wild fruit, and by penetrating the young figs produce the effect intended. That this insect, which by the ancients was called *Psenes*, or *Culex*, and by Linnæus, *Cynips Psenes*, produced this desirable effect, is generally admitted; but how it is to be explained has been the subject of some dispute.

To prevent ripe Figs from running into putrefaction, it is usual to dry them; which may be done either by the heat of the sun, or by means of an oven: the latter way is preferred, especially when the fruit has been caprifigged, as the larva of the cynips is destroyed by the heat. The best Figs are imported from the southern parts of Europe in small chests, and are compressed into a circular form, of a yellowish colour, and filled with a viscid sweet pulp, in which are lodged numerous small yellow lenticular seeds. The surface of the Figs is commonly covered with a saccharine matter, which exudes from the fruit, and hence they have been named *Caricæ pingues*, or fat Figs.

The recent fruit, completely ripe, is soft, succulent, and easily digested, unless eaten in immoderate quantities; when it is apt to occasion flatulency, pain of the bowels, and diarrhœa.<sup>c</sup> The dried fruit is pleasanter to the taste, and is more wholesome and nutritive.

<sup>a</sup> See *Theophrastus*, *Suidas*, *Pliny*, and others.

<sup>b</sup> Caprifigation, as practised at some of the Archipelago Islands, when visited by Tournefort, appears to be a very curious but troublesome business. See *Tournefort, Voyage du Levant*, vol. i. p. 130.

<sup>c</sup> *Murray, App. Med.* vol. iv. p. 585.

Figs are supposed to be more nutritious, by having their sugar united with a large portion of mucilaginous matter, which, from being thought to be of an oily nature, has been long esteemed an useful demulcent and pectoral; and it is chiefly with a view to these effects that they have been medicinally employed.

Figs are directed by the London Pharm. in the decoctum hordei compositum, and in the electuarium lenitivum. Externally applied they are supposed to promote the suppuration of tumours, and hence have a place in maturing cataplasms; with this intention they are also sometimes used by themselves, as warm as they can easily be borne, to phlegmons of the gums, and other parts where a poultice cannot conveniently be applied.

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AMOMUM REPENS,                      OFFICINAL CARDAMOM.  
SEU CARDAMOMUM.

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*SYNONYMA.* Cardamomum minus. *Pharm. Lond. & Edinb.*  
*Gerard. Emac. p. 1547. Park. Theat. p. 1576.* Cardamomum  
simpliciter in officinis dictum. *Baub. Pin. p. 414.* Cardamomum  
cum filiquis seu thecis brevibus. *J. Baub. Hist. vol. ii. p. 205.*  
Amomum repens, seu Le Cardamome de la Côte de Malabar.  
*Sonnerat Voyage aux Indes oriental. tom. ii. p. 240. tab. 136.* Alia  
species est Amomum Cardamomum L. scapo simplicissimo brevissimo.

*Class* Monandria. *Ord.* Monogynia. *Lin. Gen. Plant. 2.*

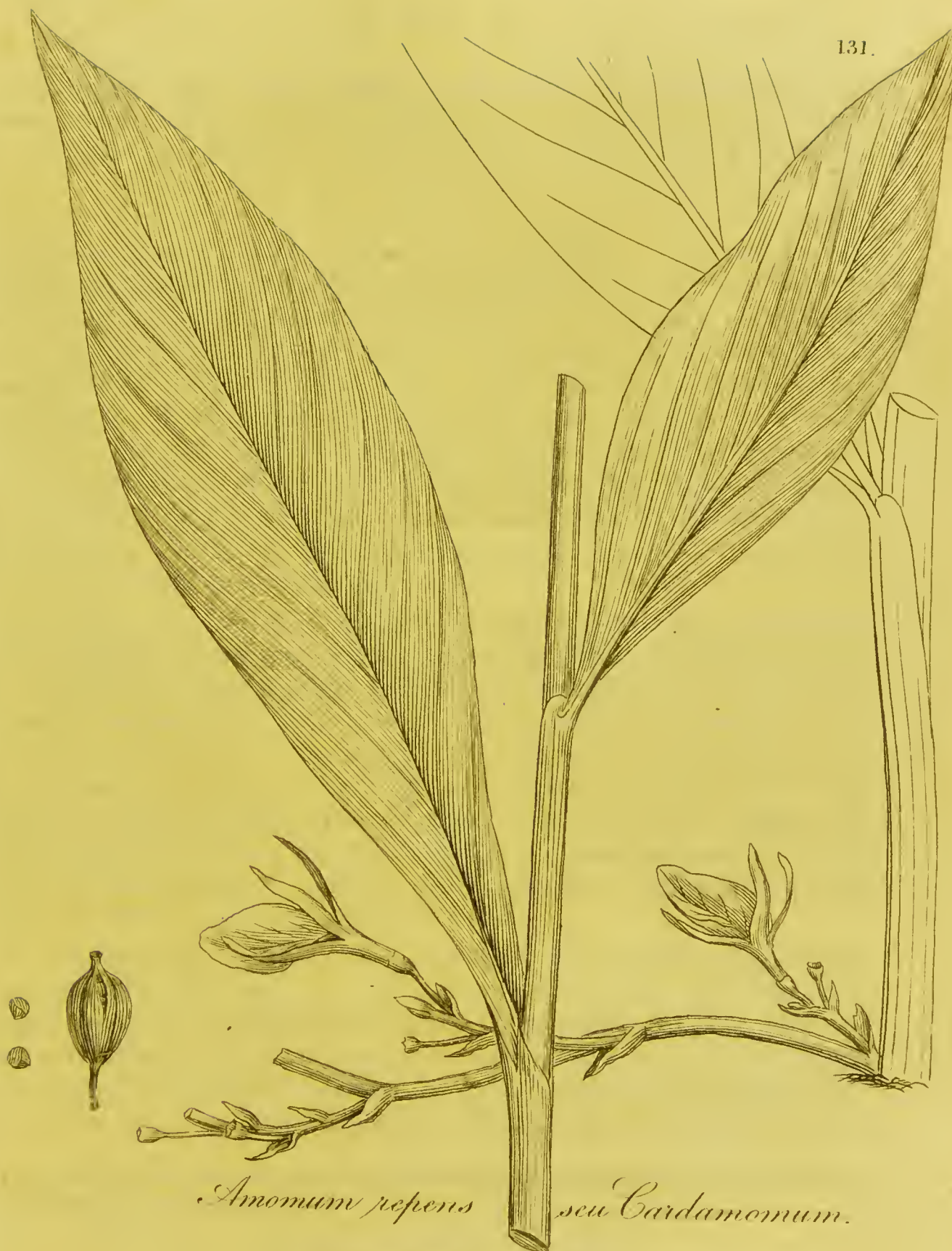
*Eff. Gen. Ch.* Cor. 4-fida: lacinia prima patente.

*Sp. Ch.* A. scapis ramosis elongatis decumbentibus.

*Smith, Syst. Veg. ined.*

THE root is perennial: the stalks are simple, sheathy, erect, grow to a considerable height, and beset with leaves, which are lance-shaped, large, entire, acutely pointed, ribbed, and stand alternately upon the sheaths of the stalk: the flower stalk proceeds immediately from





*Anomum repens* seu Cardamomum.

Published by D<sup>r</sup> Woodville, March 1. 1792.





from the root, and creeps along the ground; it is commonly about a foot and a half in length, articulated, in a zig-zag form,\* and producing numerous flowers, which are placed upon divided stipulated peduncles, arising from the articulations: the calyx is small, and obscurely divided into three teeth at the margin: the corolla is monopetalous, composed of a narrow tube, divided at the mouth into four segments; of these the three outermost are long, narrow, uniform, and of a straw colour, but the central one, which has been considered as a nectary, is large, broad, concave, of an irregular oval shape, and marked with violet coloured stripes: the filament is membranous, strap-shaped, shorter than the segments of the corolla, to the top of which the anthera is joined: the germen is roundish, and placed below the insertion of the tube of the corolla: the style is filiform, of the length of the filament, and supplied with an obtuse stigma: the capsule is triangular, divided into three cells and valves, containing several small dark coloured seeds.

This plant is a native of the East-Indies, and according to Sonnerat grows abundantly on the Malabar Coast:<sup>a</sup> it differs considerably from the *Amomum Cardamomum* of Linnæus, as appears by the specific character he has given it, and the figures to which it is referred to in his *Species Plantarum*.<sup>b</sup> Sonnerat, who first discovered the *Amomum repens*, and on whose authority it is considered to afford the seeds officinally known by the name of *Cardamomum minus*, informs us, that this plant abounds so plentifully on a certain mountain on the Coast of Malabar, that it is called the Mountain of Cardamoms, from which all India is supplied with the seeds.

The Cardamoms imported into Europe have been distinguished by the names *Cardamomum majus*, *medium*, & *minus*; the distinction depending upon the respective sizes of their seeds; but the different species from which the two former are said to have been produced, are so imperfectly described, and their botanical histories so confused, that we are unable to give any satisfactory information concerning them;

\* In a specimen of this plant, which we have seen in the Herbarium of Sir Joseph Banks, this appearance was very remarkable.

<sup>a</sup> L. c.

<sup>b</sup> *Elettari. Hort. Malab. vol. ii. tab. 5.*  
*Rumph. Amboin. vol. v. tab. 65.*

and whether the *Amomum verum* of the ancient Greek writers is referable to our Cardamom, seems also equally uncertain.

The seeds of the *Cardamomum minus*, which are now generally preferred for medicinal purposes, are brought to us in their capsules, or husks, by which they are preserved; for they soon lose a part of their flavour when freed from this covering. " Their virtue is extracted not only by rectified spirit, but almost completely by water also; with this difference, that the watery infusion is cloudy or turbid, the spirituous clear and transparent. Scarcely any of the aromatic seeds give out so much of their warmth to watery menstrua, or abound so much with gummy matter, which appears to be the principle by which the aromatic part is made dissoluble in water: the infusion is so mucilaginous, even in a dilute state, as hardly to pass through a filter."

" In distillation with water, a considerable quantity of essential oil separates from the watery fluid, of a pale yellowish colour, in smell exactly resembling the Cardamoms, and of a very pungent taste: the remaining decoction is disagreeably bitterish, and mucilaginous. On inspissating the tincture made of rectified spirit, a part of the flavour of the Cardamoms arises with the spirit; but the greatest part remains behind, concentrated in the extract, which smells moderately of the seeds, and has a pungent aromatic taste, very durable in the mouth, and rather more grateful than that of the seeds in substance."

Cardamom seeds, on being chewed, impart a glowing aromatic warmth, and grateful pungency: they are supposed gently to stimulate the stomach, and prove cordial, carminative, and antispasmodic, but without that irritation and heat which many of the other spicy aromatics are apt to produce. We are told by Sonnerat, that the Indians use it much, and believe it to strengthen the stomach, and assist digestion. Physicians however consider Cardamoms merely as an aromatic, and prescribe them in conjunction with other medicines, which they are intended to correct or assist.

Simple and compound spirituous tinctures of these seeds are directed by the Pharmacopœias; they are also ordered as a spicy ingredient in many of the officinal compositions.

\* Lewis, *Mat. Med.* p. 194.





*Curcuma longa*

Published by Dr. Woodville, March 1, 1792.

## CURCUMA LONGA. LONG-ROOTED TURMERIC.

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*SYNONYMA.* Curcuma. *Pharm. Lond. & Edinb.* Cannacorus radice crocea, five Curcuma officinarum. *Tourn. Inst.* p. 367. Curcuma longa. *König, in Rez. obs. bot. fasc.* 3. p. 72. Curcuma radice longa. *Zanon. Hist. Pl. ed. Mont.* p. 86. tab. 59. Curcuma domestica major. *Rumph. Herb. Amboin.* tom. 5. p. 162. tab. 67. Manjella-Kura. *Hort. Malab.* tom. 11. p. 21. tab. 11. Amomum Curcuma. *Jacquin, Hort. Vindob.* tom. 3. p. 5. tab. 4.

*Class* Monandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 6.

*Eff. Gen. Ch.* Stamina 4-sterilia, quinto fertili.

*Sp. Ch.* C. foliis lanceolatis: nervis lateralibus numerosissimis.

THE root is perennial, tuberous, and furnished with strong fibres, externally brownish, and internally of a deep yellow colour: the leaves are radical, large, lance-shaped, obliquely nerved; at the bottom, vaginal, and closely embracing each other: the scapus, or flower stem, rises from the centre of the leaves; it is short, thick, smooth, and forms a spike of numerous bracteal imbricated scales, between which the flowers successively issue: the corolla is monopetalous, consisting of a narrow tube, divided at the mouth into three oval segments: the nectarium occupies the wide under-sinus of the corolla, and is the most conspicuous part of the flower; it is of a flesh colour, petal-like, large, spreading, and cut into three divisions, of which the middlemost is the largest: the filaments are five, four of which are erect, slender, linear, contracted, sterile; the fifth is petal-formed, lodged within the nectarium, and cleft at the top, to which the anthera is adjoined: the germen is roundish, and placed below the corolla: the style is the length of the filament, and furnished with a simple hooked stigma: the capsule is roundish, three-celled, three-valved, and contains numerous small seeds.



Turmeric is a native of the East Indies, and common in the gardens of the Chinese; it grows abundantly in Malacca, Java, and Balega.<sup>a</sup> It was first cultivated in England by Mr. P. Miller in 1759.<sup>b</sup> The root of this plant has been long officinally known, and passed under different names, as *Crocus indicus*, *Terra merita*, &c. In its dried state, as imported here, it is various in shape; externally of a pale yellow colour, wrinkled, solid, ponderous, and the inner substance of a deep saffron or gold colour; its odour is somewhat fragrant, and to the taste it is bitterish, slightly acrid,<sup>c</sup> exciting a moderate degree of warmth in the mouth, and on being chewed it tinges the saliva yellow. It has been very generally employed for the purpose of dying,<sup>d</sup> and in eastern countries it is much used for colouring and seasoning of food.<sup>e</sup>

“ This root gives out its active matter both to aqueous and spirituous menstrua. In distillation with water, it yields a small quantity of gold-coloured essential oil, of a moderately strong smell, and a pungent taste: the remaining decoction, inspissated, leaves a bitterish considerably saline mass. Rectified spirit elevates little or nothing of its virtue; all the active parts being left behind in the inspissated extract.”<sup>f</sup>

This root has had the character of being a powerful aperient and resolvent: it has been commonly prescribed in obstructions of the liver, and other chronic visceral affections. The disease in which it has been thought most efficacious is the jaundice; but though the use of this root is highly recommended by several practical writers,<sup>g</sup>

<sup>a</sup> Vide König, Rumphius, and Bontius.

<sup>b</sup> *Hort. Kew.*

<sup>c</sup> The Chinese use it as a sternutatory.

<sup>d</sup> “ This substance is very rich in colour, and there is no other which gives a yellow colour of such brightness; but it possesses no durability, nor can mordants give it a sufficient degree: common salt, and ammoniacal muriat, are those which fix the colour best, but they render it deeper.” Hamilton’s translation of Berthollet’s *Elements of the Art of Dying*, vol. ii. p. 280. See also on this subject, Hellot *L’art de la Teint.* p. 406. and Pörner, *Chym. Versuche z. Nuz. der Farbekunst*, vol. i. 1. *Abb.* Scharffs *Recepte üb. versch. Gattungen. v. Farb.* 1. *St.*

<sup>e</sup> It enters the composition of the Curry powder which is now much used here.

<sup>f</sup> *Lewis, M. M.*

<sup>g</sup> Of these we may more particularly refer to Bontius, (*De Med. Indor.* p. 115.) F. Hoffman, (*Meth. Med. in Med. rat. tom. iii.* p. 542.) Coc, (*on Biliary Concret.* p. 285.)





*Hampea rotunda*

Published by W. Woodville March 1. 1792.



it is now very rarely employed; and we are told by Dr. Cullen, that the decoctum ad Ictericos of the Edinburgh Dispensatory, (Ed. 1756) “ never had any other foundation than the doctrine of signatures in favour of the Curcuma and Cheledonium majus.”<sup>h</sup>

<sup>h</sup> *Mat. Med. vol. i. p. 25.*

## KÆMPFERIA ROTUNDA.

## ZEDOARY.

*SYNONYMA.* Zedoaria. *Pharm. Lond. & Edinb.* I. Zedoaria longa. II. Zedoaria rotunda. *Baub. Pin. p. 31. Park. Theat. p. 1612. Raii Hist. p. 1340. Gerard, Emac. p. 1623. Malan-Kua. Rheed. Hort. Malab. tom. 11. p. 17. tab. 9.*

*Class* Monandria. *Ord.* Monogynia. *Lin. Gen. Plant. 7.*

*Eff. Gen. Ch.* Cor. 6-partita: laciniis 3 majoribus patulis, unica bipartita. *Stigma* bilamellatum.

*Sp. Ch.* K. fol. lanceolatis petiolatis.

THE root is perennial, tuberous, fleshy, compressed, externally of an ash colour, internally of a bluish grey: the flower stem is covered with sheaths, and rises very little above the ground: the leaves are large, radical, nearly elliptical, pointed, veined, and stand upon broad footstalks: the calyx is small and obscure: the corolla is monopetalous, consisting of a long slender conical tube, divided at the upper extremity into six parts, three of which are long, narrow, spreading, inserted below the others, of which two are oval, pointed, and erect; the remaining one is deeply cut into two obversely heart-shaped divisions, of a reddish colour, and beautifully striated with purple: there is but one filament, which is membranous, and notched at the end: the anthera is linear, doubled, entirely adherent, and scarcely rises above the tube of the corolla: the germen is roundish, and supports

ports a style, which is about the length of the tube, furnished with a folded roundish stigma: the capsule is triangular, divided into three cells, and as many valves, and contains numerous small seeds.

On the authority of Linnæus, the Colleges of London and Edinburgh have referred the officinal Zedoary to this plant, which is a native of the East Indies. But Bergius informs us, that he received a specimen of the Zedoary plant from India, which, upon examination, was found to be a species of *Amomum*;<sup>a</sup> and it is observed by Murray, that this opinion receives additional weight by the description of Zedoary, or the *Indorum Tamogcansi*, given by Camellus.<sup>b</sup>

It seems no easy task to discover with any tolerable probability, whether this drug was used by the ancients or not; some have supposed it to be the Costus of Dioscorides, the Guiduar of Avicenna, the Zerumbet of Serapion.\* But this we leave to those who are ready to decide upon what is merely conjectural.

The roots of Zedoaria, longa and rotunda, are both produced by the same species of plant, and are indiscriminately used in the shops; the former are brought to us in oblong pieces, about the thickness of the little finger, two or three inches in length, bent, rough, and angular; the latter are roundish, about an inch in diameter, of an ash colour on the outside, and white within.

“ This root has an agreeable camphoraceous smell, and a bitterish aromatic taste. It impregnates water with its smell, a slight bitterness, a considerable warmth and pungency, and a yellowish brown colour: the reddish yellow spirituous tincture is in taste stronger, and in smell weaker, than the watery. In distillation with water it yields a thick ponderous essential oil, smelling strongly of the Zedoary, in taste very hot and pungent.”<sup>c</sup>

Cartheuser, who ascribes the virtues of Zedoary to a camphoraceous volatile oil, considers it as a general remedy for most of the chronic

<sup>a</sup> “ Plantam habui ex Cochinchina, figuræ Rheedcanæ convenientem, lectam a Cl. Joanne de Loureiro & comparatam sub itinere Chinenfi, Cl. Car. G. Exeberg, Centurione & navis Gubernatore, de scientia botanices bene merito.” *Mat. Med.* p. 5. He calls it, *A. scapo nudo, spica laxa truncata*; and makes its synonyma to be, Kua. *Rheed. Malab.* 11. p. 13. t. 7. Common itam. *Rumph Amb.* 5. p. 169. *Zedoaria Camell. Stirp. Luz.* p. 23. <sup>b</sup> See Raii, *Hist. plant. vol. 3. in App.* <sup>c</sup> Lewis, *M. M.* p. 684.

\* See on this subject, S. G. Manitijs. *De ætatibus Zedoariæ relatio.* Dresd. 1691. diseases







*Myristica Moschata*

Published by D<sup>r</sup> Woodville March 1. 1792.

diseases with which humanity is afflicted ;<sup>e</sup> but as the camphor it contains can avail but little, and its effects as a bitter or aromatic are so very inconsiderable, this root is now deemed to possess very little medicinal power, and might safely be expunged from the materia medica ;<sup>f</sup> though it still has a place in the confectio aromatica of the London pharmacopœia.

<sup>e</sup> Sect. xiv. §. 3.      <sup>f</sup> Dr. Cullen says, " I am clear that it might safely be omitted in our lists of the Mat. Med." *Mat. Med. vol. ii. p. 207.*

## MYRISTICA MOSCHATA. NUTMEG TREE.

*SYNONYMA.* Nux Moschata. *Pharm. Lond. & Edinb. Park. Theat. p. 1600. Raii Hist. p. 1522. Nux Moschata, fructu rotundo. Baub. Pin. p. 407. Pluk. Almag. p. 267. Nux Moschata rotunda, five femina. Gerard, Emac. p. 1536. Breyn. Prod. vol. ii. p. 77. Nux Myristica. Rumph. Amb. vol. ii. tab. 4. Myristica Moschata. Thumb. Aët. Stockholm. ann. 1782. p. 46. t. 1. Conf. Mémoire sur le genre du Muscadier Myristica, par Mr. De La Marck ; Hist. de l'Acad. Royal des Scien. pour l'an. 1788. pub. en 1790. p. 148.*

*Class* Dioecia. *Ord.* Syngenesia. *Shreb. Gen. Plant.* 1562.

*Eff. Gen. Ch.* *MASC. Cal.* 3-fidus. *Cor.* o. *Anthæ* circum supremam partem filamenti adnatæ.

*FEM. Cal.* 3-fidus. *Cor.* o. *Styl.* breviss. *Stigma* bifida. *Caps.* drupacea. *Shreb.*

*Sp. Ch.* M. foliis lanceolatis fructu glabro. *Thumb.*

THIS tree attains the height of thirty feet, producing numerous branches which rise together in stories, and covered with bark, which of the trunk is a reddish brown, but that of the young branches is of a bright green colour: the leaves are nearly elliptical, pointed, undulated, obliquely nerved, on the upper side of a bright green, on the under whitish, and stand alternately upon footstalks: the flowers are small, and hang upon slender peduncles, proceeding from the axillæ of the leaves: they are both male and female upon separate trees.



Of the *male flower* the calyx consists of one bell-shaped leaf, divided at the brim into three small teeth: there is no corolla: the stamina, according to De La Marck, are from six to twelve, joined in a bundle, consisting of short filaments, inserted into the receptacle, and surrounded with antheræ, which are long, linear, and united.

Of the *female flower* the calyx is similar to that of the male flower: there is no corolla: the germen is above, oval, and supports a style, terminated by two stigmata: the fruit is round or oval, and of the drupous kind, of which the external covering is fleshy, tough, and by opening at the top separates into two valves, and discovers the Mace, which has a reticulated appearance, and divides into three portions, which closely invest a slender shell containing the seed or Nutmeg. This tree is a native of the East Indies, particularly the Molucca Islands.

The Nutmeg has been supposed to be the Comacum of Theophrastus, but there seems little foundation for this opinion, nor can it with more probability be thought to be the Chrysobalanos of Galen. Our first knowledge of it was evidently derived from the Arabians; by Avicenna it was called Jiaufiban, or Jaufiband,<sup>a</sup> which signifies Nut of Banda. Rumphius both figured and described this tree;<sup>b</sup> but the figure given by him is so imperfect, and the description so confused, that Linnæus, who gave it the generic name Myristica, was unable to assign its proper characters. Sonnerat's account of the Muscadier is still more erroneous;<sup>c</sup> and the younger Linnæus was unfortunately misled by this author, placing the Myristica in the class Polyandria, and describing the corolla as consisting of five petals.<sup>d</sup> Thunberg, who examined the flower of the Nutmeg, places it in the class monoecia, and according to his description, the male flower has but one filament, surrounded at the upper part by the antheræ;<sup>e</sup> and as the filaments are short and slender, and the antheræ united, this mistake might easily arise.\*

<sup>a</sup> *Lib. ii. cap. 503*, and by Serapion it was named Jeuzbave.

<sup>b</sup> Vide, *l. c.*      <sup>c</sup> *Voyage à la Nouvelle Guinée*, p. 194. t. 116.      <sup>d</sup> *Suppl. Plant.* p. 265.      <sup>e</sup> *Act. Stockholm.* 1782. p. 46.

\* Since writing the above, Mr. Dryander informed me, that he had examined several specimens of these male flowers preserved in spirit, in each of which he found only one columnar filament, and concludes that De La Marck must have been deceived by dividing the fibres of this organ: consequently the myristica should in strictness be placed in the order monadelphia.



Mr. De La Marck informs us, that he received several branches of the Myristica, both in flower and fruit, from the Isle of France, where a Nutmeg-tree, which was introduced by Mons. Poivre, in 1770, is now very large, and continually producing flowers and fruit.<sup>f</sup> From these branches, which were sent from Mons. Céré, Director of the King's garden in that island, Mons. De La Marck has been enabled to describe and figure this and other species of the Myristica with great accuracy; and the annexed plate will shew, that we have profited by his labours.

The seeds or kernels, called Nutmegs, are well known, as they have been long used both for culinary and medical purposes. Distilled with water, they yield a large quantity of essential oil, resembling in flavour the spice itself; after the distillation, an insipid sebaceous matter is found swimming on the water; the decoction, inspissated, gives an extract of an unctious, very lightly bitterish taste, and with little or no astringency. Rectified spirit extracts the whole virtue of Nutmegs by infusion, and elevates very little of it in distillation: hence the spirituous extract possesses the flavour of the spice in an eminent degree.

Nutmegs, when heated, yield to the press a considerable quantity of limpid yellow oil, which on cooling concretes into a sebaceous consistence. In the shops we meet with three sorts of unctious substances, called Oil of Mace, though really expressed from the Nutmeg. The best is brought from the East Indies in stone jars; this is of a thick consistence, of the colour of mace, and has an agreeable fragrant smell: the second sort, which is paler coloured, and much inferior in quality, comes from Holland in solid masses, generally flat, and of a square figure: the third, which is the worst of all, and usually called Common Oil of Mace, is an artificial composition of sebum, palm oil, and the like, flavoured with a little genuine oil of Nutmeg.<sup>g</sup>

The medicinal qualities of Nutmeg are supposed to be aromatic, anodyne, stomachic, and restringent,<sup>h</sup> and with a view to the last mentioned effects, it has been much used in diarrhœas, and dysenteries. To many people the aromatic flavour of Nutmeg is very agreeable; they, however, should be cautioned not to use it in large quantities, as it is apt to affect the head, and even to manifest an

<sup>f</sup> L. c.   <sup>g</sup> Ed. *New Dispens.* by Dr. Duncan. p. 238.   <sup>h</sup> Bergius, *M. M.* p. 884.

hypnotic

hypnotic power in such a degree as to prove extremely dangerous. Bontius speaks of this as a frequent occurrence in India;<sup>i</sup> and Dr. Cullen relates a remarkable instance of this soporific effect of the Nutmeg, which fell under his own observation,<sup>k</sup> and hence concludes, that in apoplectic and paralytic cases this spice may be very improper. The officinal preparations of Nutmeg are a spirit and essential oil, and the Nutmeg in substance roasted, to render it more astringent. Both the spice itself and its essential oil, enter several compositions, as the confectio aromatica, spiritus amoniæ com. &c. MACE possesses qualities similar to those of the Nutmeg, but is less astringent, and its oil is supposed to be more volatile and acrid.

<sup>i</sup> *De Medicina Indorum*, p. 20. See also *Miscell. Nat. Cur. dec. III. ann. II. obs. 120.*

<sup>k</sup> “A person by mistake took two drams or a little more of powdered Nutmeg: he felt it warm in his stomach, without any uneasiness; but in about an hour after he had taken it he was seized with a drowsiness, which gradually increased to a complete stupor and insensibility; and not long after he was found fallen from his chair, lying on the floor of his chamber in the state mentioned. Being laid a-bed he fell asleep; but waking a little from time to time, he was quite delirious: and he thus continued alternately sleeping and delirious for several hours. By degrees, however, both these symptoms diminished, so that in about six hours from the time of taking the Nutmeg he was pretty well recovered from both. Although he still complained of head-ach, and some drowsiness, he slept naturally and quietly the following night, and next day was quite in his ordinary health.” *Mat. Med. vol. ii. p. 204.*

## CARYOPHYLLUS AROMATICUS.

## CLOVE TREE.

*SYNONYMA.* Caryophyllum aromaticum. *Pharm. Lond. & Edinb.* Caryophyllus aromaticus, fructu oblongo. *Bauh. Pin. p. 410.* *Raii Hist. p. 1508.* Caryophylli. *Park. Theat. p. 1577.* *Gerard, Emac. p. 1535.* Caryophyllus aromaticus, Indiæ orientalis, fructu clavato monopireno. *Pluk. Alm. 88. t. 155. f. 1.* Caryophyllum. *Rumph. Herb. Amb. vol. ii. t. 1. 2. sq.* Caryophyllus Kruidnagelboom. *Houttuyn natuurlyke historie, vol. ii. P. 3. p. 44. tab. 12. fig. 1.* Le Geroffier. *Sonnerat Voyage à la Nouvelle Guinée. p. 196. tab. 119.*

*Class* Polyandria.





*Caryophyllus aromaticus*

published by W. Woodville March 1. 1792.





*Class* Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 669.\*

*Eff. Gen. Ch.* *Cor.* 4-petala. *Cal.* 4-phyllus, duplicatus. *Bacca*  
1-sperma, infera.

*Sp. Ch.* *C.* foliis ovato-lanceolatis oppositis, floribus terminalibus,  
&c. *Mill. Dict.*

THIS tree never rises to any considerable height, but divides into large branches, which are covered with smooth greyish bark: the leaves are large, entire, oblong, lance-shaped, of a bright green colour, and stand in pairs upon short footstalks: the flowers terminate the branches in bunches or pannicles: the calyx of the fruit is divided at the brim into four permanent small pointed segments, and that of the flower is composed of four leaflets, which are roundish, concave, deciduous, and placed above the germen: the corolla consists of four petals, which are roundish, notched, very small, and of a bluish colour:† the filaments are numerous, slender, inserted in the calyx, and furnished with simple antheræ: the germen is oblong, large, terminated by the calyx of the fruit, and placed below the insertion of the corolla: the style is tapering, and the stigma simple: the pericarpium is one-celled, umbilicated, and terminated by the indurated converging calyx: the seed is a large oval berry.<sup>a</sup>

It is a native of the East Indies, the Moluccas, &c. and was lately found by Sonnerat in New Guinea. It has been asserted that the Dutch, who have long been in possession of the principal spice islands, destroyed all the Clove trees growing in the other islands, in order to secure a lucrative branch of commerce to themselves, and confine the cultivation of this tree to the island of Ternate;<sup>b</sup> but it appears that in 1770 and 1772, both the Clove and Nutmeg trees were brought from one of the Moluccas, and transplanted in the Isle of France, Bourbon, and Seickelles,<sup>c</sup> where they have been found to thrive very well, (see Nutmeg) though the Clove tree has since succeeded better in Cayenne.<sup>d</sup> To bring this tree to the highest perfection, a peculiar

\* The Caryophyllus evidently belongs to the class Icosandria; and modern botanists refer it to the genus *Eugenia*. † We examined this plant preserved in spirit, in the possession of the President of the Royal Society, but without finding any corolla.

<sup>a</sup> The fruit, in its mature state, is known by the name *Anthophyllus*.

<sup>b</sup> Savary, *Dict.* vol. ii. p. 653. <sup>c</sup> *Hist. de l'Acad. de Sc. de Paris*, 1772. <sup>d</sup> Tessier, in *Rozier Journ. de Phys.* 1779.



mode of cultivation seems necessary, and is practised in Amboina by the Dutch, by whom it is kept a profound secret.\* If the Clove was known to the Greeks, it cannot be discovered by their writings, nor is there any distinct account of it given by Pliny; but it seems in some measure applicable to the description of the Carunfel of Serapion, and the Charumfel Bellun of Avicenna,† so that this spice, as well as the Nutmeg, was probably known to the Arabians.

The spice used here, and known by the name of Cloves, is the unexpanded flowers or rather calyces, which are found to be more aromatic than in their advanced state; they are of a dark brown colour, which they acquire from the smoke to which they are exposed; for in order to preserve the Cloves it is customary first to immerse them in boiling water, and then subject them to fumigation, or merely to fumigate them, and afterwards expose them to the sun for further exsiccation.

The Clove has a strong agreeable smell, and a bitterish hot not very pungent taste: these qualities are completely extracted by rectified spirit. After inspissating the filtered tincture, the remaining extract has little smell, but its taste is excessively hot and fiery. Cloves impregnate water more strongly with their smell than they do spirit, but not near so much with their taste; and in distillation with water they yield one-sixth of their weight of essential oil, smelling strongly of the Cloves, but less pungent than the spirituous extract.

“The oil of Cloves commonly met with in the shops, and received from the Dutch, is indeed highly acrimonious: but this oil is plainly not the genuine distilled oil of Cloves, but considerably more pungent, containing half its weight of an insipid expressed oil: it is probably from an admixture of the resinous part of the Clove that this sophisticated oil receives both its acrimony and high colour.”‡

Clove is accounted the hottest and most acrid of the aromatics, and by acting as a powerful stimulant to the muscular fibres, may in some cases of atonic gout, paralysis, &c. supersede most others of the aromatic class; and the foreign oil, by its great acrimony, is also well adapted for several external purposes.

The essential oil is the preparation of this spice directed by the pharmacopœias, which, as well as the Clove itself, enters several officinal compositions.

\* *Rumph. l. c.* † *Vide J. Baub. Hist. vol. i. p. 426.* ‡ *Lewis, M. M. p. 203.*



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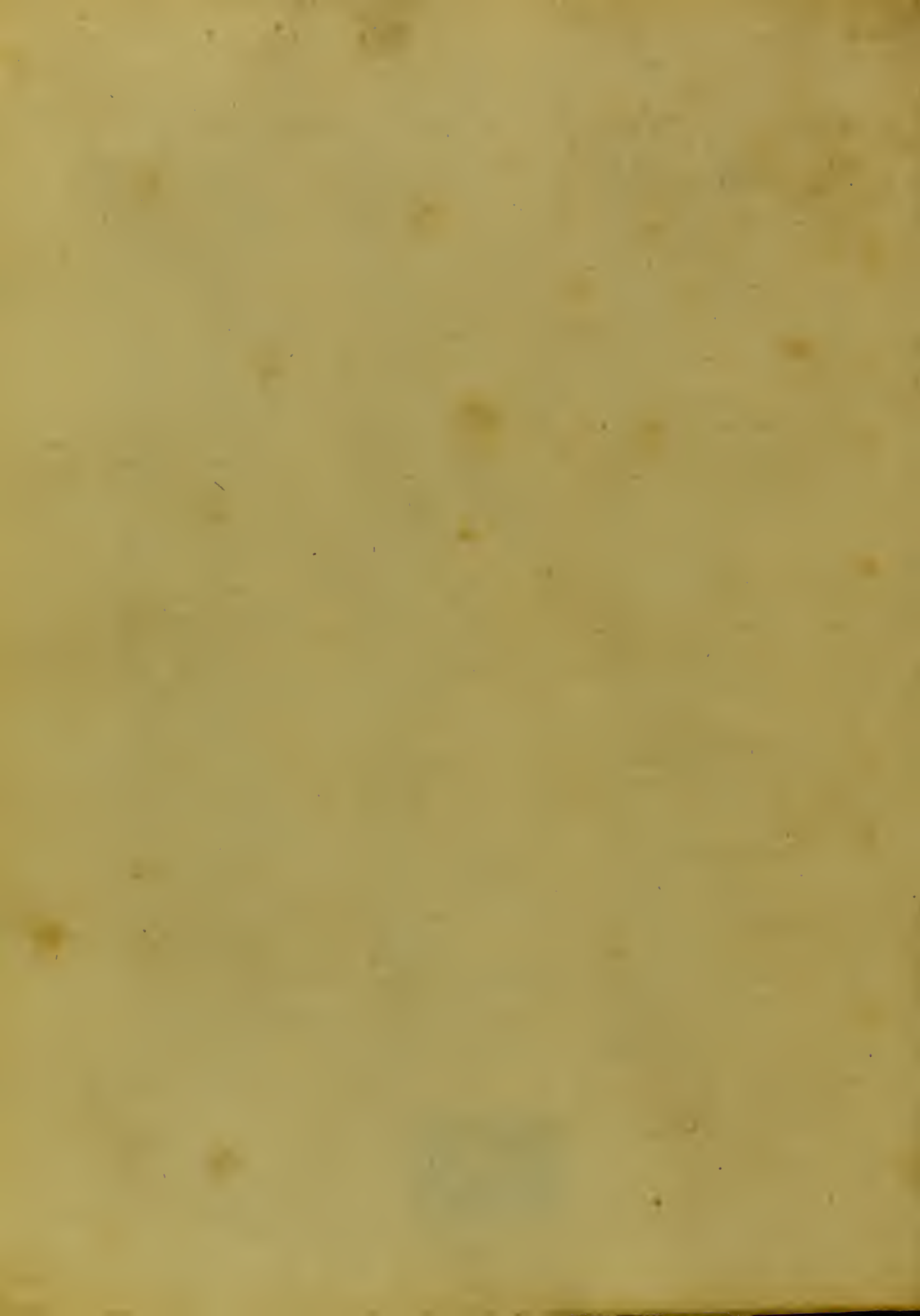
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